3-1109

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From: Mertz, Prema
Sent: Monday, March 29, 1999 5:09 PM
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Prema Mertz
Art Unit 1646
Rm 10E-01
308-4229

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08/927939


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     FILE 'REGISTRY' ENTERED AT 11:59:10 ON 31 MAR 1999
L1           16 S EICADPKQKWVQ/SQSP

     FILE 'CAPLUS' ENTERED AT 11:59:36 ON 31 MAR 1999
L2           18 S L1

=> d 1-18 .bevstr; sel hit l2 1-18 rn

L2   ANSWER 1 OF 18  CAPLUS  COPYRIGHT 1999 ACS
AN   1999:96361  CAPLUS
DN   130:167179
TI   Analogs of monocyte chemoattractant protein MCP-1
IN   Barratt, Derek Graham; Needham, Maurice Ronald Charles
PA   Zeneca Limited, UK
SO   PCT Int. Appl., 49 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 9905279         A1   19990204       WO 98-GB2179     19980721
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
             TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 97-15659      19970725
     GB 97-15661      19970725
     GB 97-15663      19970725
AB   This invention relates to novel analogs of monocyte chemoattractant
     protein-1 (MCP-1) having substitution of an alanine, glycine, or
     threonine for the natural valine in position 9 of MCP1(9-76). The
     analogs tested have a similar potency in receptor-binding, monocytic
     chemotaxis, and calcium flux. Corresponding polynucleotide
     sequences, vectors, host cells and recombinant expression,
     particularly in Escherichia coli, are also provided.
IT   188627-69-2DP, 9-76-Monocyte chemoattractant protein-1
     (human), analogs 220382-62-7DP, analogs
     220382-68-3DP, analogs 220382-73-0DP, analogs
     RL: BAC (Biological activity or effector, except adverse); BPN
     (Biosynthetic preparation); PRP (Properties); BIOL (Biological
     study); PREP (Preparation)
        (amino acid sequence; analogs of monocyte chemoattractant protein
        MCP-1)
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L2 ANSWER 2 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:267097 CAPLUS
DN 126:246815
TI Monocyte chemoattractant protein MCP-1 N-terminally truncated analogs bind by MCP-1 receptors without activating them and are useful inflammation inhibitors
IN Lewis, Ian-Clark; Gong, Jiang-Hong
PA Lewis, Ian-Clark, Can.; Gong, Jiang-Hong
SO Can. Pat. Appl., 27 pp.
CODEN: CPXXEB
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2152141	AA	19961220	CA 95-2152141	19950619

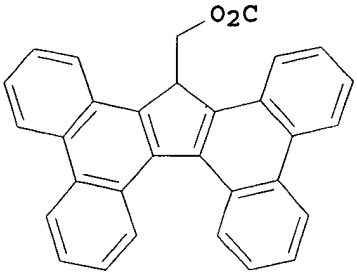
AB N-terminally truncated MCP-1 analogs that function as MCP-1 antagonists are disclosed. The MCP-1 antagonist analogs may be used to inhibit MCP-1 activity and binding of MCP-1 to MCP-1 receptors. The analogs may be used in pharmaceutical prepns. as anti-inflammatory agents. In particular, 8-76- and 9-76-MCP-1 analogs are included.
IT **188627-69-2 188627-71-6**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(amino acid sequence; monocyte chemoattractant protein MCP-1 N-terminally truncated analogs bind by MCP-1 receptors without activating them and are useful inflammation inhibitors)

L2 ANSWER 3 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1997:144129 CAPLUS
DN 126:210456
TI Induction of monocyte chemoattractant protein-1 in the small veins of the ischemic and reperfused canine myocardium
AU Kumar, Ajith G.; Ballantyne, Christie M.; Michael, Lloyd H.; Kukielka, Gilbert L.; Youker, Keith A.; Lindsey, Merry L.; Hawkins, Hal K.; Birdsall, Holly H.; Mackay, Charles R.; et al.
CS Section of Cardiovascular Sciences, DeBakey Heart Center, Department of Medicine, Methodist Hospital, Houston, TX, USA
SO Circulation (1997), 95(3), 693-700
CODEN: CIRCAZ; ISSN: 0009-7322
PB American Heart Association
DT Journal
LA English
AB Healing after myocardial infarction is characterized by the presence of macrophages in the infarcted area. Since augmented monocyte influx has been implicated as a potential mechanism for improved

healing after reperfusion, the authors wished to study the induction of monocyte chemoattractant protein-1 (MCP-1) during reperfusion. The cDNA for MCP-1 was cloned from a canine jugular vein endothelial cell (CJVEC) library and exhibited 78% identity with the deduced amino acid sequence of human MCP-1. Samples of myocardium were taken from control and ischemic segments after 1 h of ischemia and various times of reperfusion; total RNA was isolated from myocardial samples and probed with a cDNA probe for canine MCP-1. Induction of MCP-1 mRNA occurred only in previously ischemic segments within the first hour of reperfusion, peaked at 3 h, and persisted throughout the first 2 days of reperfusion. In the absence of reperfusion, no significant MCP-1 induction was seen. Both ischemic (but not preischemic) cardiac lymph and human recombinant TNF-.alpha. induced MCP-1 in CJVECs. MCP-1 was identified by immunostaining on infiltrating cells and venular (but not arterial) endothelium by 3 h. In contrast, in situ hybridization showed MCP-1 mRNA to be confined to the endothelium of small veins (venules) 10 to 70 .mu.m in diam. MCP-1 mRNA is induced in the endothelium of a specific class of small veins immediately after reperfusion. MCP-1 induction is confined to the previously ischemic area that has been reperfused. The authors suggest a significant role for MCP-1 in monocyte trafficking in the reperfused myocardium.

IT **188044-57-7**
RL: PRP (Properties)
(amino acid sequence; monocyte chemoattractant protein-1 cDNA sequence and induction in small veins of ischemic and reperfused canine myocardium in relation to monocyte influx in wound healing after myocardial infarction)

L2 ANSWER 4 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1996:141358 CAPLUS
DN 124:290261
TI The total chemical synthesis of monocyte chemotactic protein-1 (MCP-1)
AU Brown, Angus R.; Covington, Maryanne; Newton, Robert C.; Ramage, Robert; Welch, Patricia
CS Dep. Chemistry, Univ. Edinburgh, Edinburgh, UK
SO J. Pept. Sci. (1996), 2(1), 40-6
CODEN: JPSIEI; ISSN: 1075-2617
DT Journal
LA English
GI



I

AB The affinity-based N.alpha.-amino protecting group tetrabenzo[a,c,g,i]fluorenyl-17-methoxycarbonyl (Tbfmoc) (I) has been utilized as a hydrophobic probe to allow the simple, quick and highly effective isolation of a 76 residue cysteine-contg. protein (MCP-1). The base-labile Tbfmoc group can be removed under very mild conditions, which preserve the thiol-contg. protein in the reduced state. Oxidative folding was then used to furnish the biol. active .beta.-chemokine MCP-1.

IT **175644-97-0P**, Lymphokine MCP 1 (human)
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
((tetrabenzofluorenyl)methoxycarbonyl protective group in solid-phase prepn. of monocyte chemotactic protein-1)

L2 ANSWER 5 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1995:559968 CAPLUS
DN 122:282234
TI Remedy for wound
IN Matsushima, Koji; Naruto, Masanobu
PA Toray Industries, Inc., Japan
SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9507710	A1	19950323	WO 94-JP1512	19940913
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 07082169	A2	19950328	JP 93-227385	19930913
CA 2149323	AA	19950323	CA 94-2149323	19940913
EP 669134	A1	19950830	EP 94-926392	19940913
R: DE, FR, GB, IT				
US 5646117	A	19970708	US 95-433519	19950712

PRAI JP 93-227385 19930913
WO 94-JP1512 19940913

AB A remedy for wound healing is different from growth factors and growth factor-inducing proteins in property and effect and has a potent therapeutic effect. It contains as the active ingredient a monocyte chemotactic factor or monocyte chemotactic variant or deriv. thereof.

IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced)
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monocyte chemoattractant protein-1 as remedy for wound healing)

L2 ANSWER 6 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1995:557253 CAPLUS
DN 123:984
TI Use of heparanase to identify and isolate anti-heparanase compound
IN Hoogwerf, Arlene J.; Ledbetter, Steven R.
PA Upjohn Co., USA
SO PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9504158	A1	19950209	WO 94-US8207	19940726
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9473689	A1	19950228	AU 94-73689	19940726
EP 708838	A1	19960501	EP 94-922654	19940726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09504422	T2	19970506	JP 94-505884	19940726

PRAI US 93-99866 19930729
US 93-136117 19931013
WO 94-US8207 19940726

AB Purified heparanase having activity of greater than 20 units/.mu.g protein, preferably greater than 50 units heparanase activity per .mu.g protein, is described. The use of heparanase for screening for anti-heparanase compds. is also described. In addn., the use of the high potency heparanase to accelerate wound healing or its use as an immobilized heparanase filter connected to extracorporeal devices to degrade heparin and neutralize its anticoagulant properties during surgery is disclosed.

IT **163548-47-8**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(heparanase filter connection to extracorporeal device to degrade heparin and neutralize anticoagulation during surgery)

L2 ANSWER 7 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1995:12116 CAPLUS
DN 122:26110
TI The PCR, cloning, and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene
AU Ye, Qinong; Su, Guofu; Yuan, Yi; Huang, Cuifan
CS Inst. Biotechnol., Acad. military medical sciences, Beijing, 100850, Peop. Rep. China
SO Zhonghua Weishengwuxue He Mianyixue Zazhi (1994), 14(1), 29-32
CODEN: ZWMZDP; ISSN: 0254-5101
DT Journal
LA Chinese
AB The peripheral blood mononuclear cells (PBMCs, including monocytes and lymphocytes) from a healthy man were stimulated by PHA. The total RNA was isolated from monocytes, and used in a reverse transcription reaction to synthesize a first strand cDNA which was used as a template in PCR. The dscDNA encoding MCP-1 was obtained by PCR and digested with EcoRI and BamHI. The 280 bp DNA fragment encoding MCP-1 was recovered from agarose gel, and then inserted into the pUC19 plasmid digested with EcoRI and BamHI. The DNA fragment was sequenced. The results indicated that the encoding sequence of the twelveth amino acid was different from that reported abroad. TGT was replaced by TGC in the authors expt., but they encoded the same amino acid, namely cysteine. The other encoding sequences were identical to those reported previously. This suggests that the genotype of MCP-1 may be polymorphous.
IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence; PCR, cloning, and sequence of human monocyte chemoattractant protein-1 (MCP-1) cDNA)

L2 ANSWER 8 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1994:131889 CAPLUS
DN 120:131889
TI The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo
AU Li, Yi Shuan; Shyy, Yeun Jund; Wright, James G.; Valente, Anthony J.; Cornhill, J. Fredrick; Kolattukudy, P. E.
CS Ohio State Biotechnol. Cent., Ohio State Univ., Columbus, OH, 43210, USA
SO Mol. Cell. Biochem. (1993), 126(1), 61-8
CODEN: MCBIB8; ISSN: 0300-8177
DT Journal

LA English
AB A monocyte chemotactic protein (MCP-1) is thought to play a major role in recruiting monocytes to the vascular endothelium where the adherence of monocytes is one of the earliest events in atherogenesis. The authors cloned MCP-1 cDNA from a .lambda.gt11 cDNA library constructed from human aortic endothelial mRNA to test whether MCP-1 expressed in arterial endothelium is identical to those from other sources. A .apprx.670 MCP-1 cDNA clone was identified and showed the identical sequence with the ones from other cell lines. Northern blot anal. using this cloned MCP-1 cDNA as probe revealed two hybridizing bands of RNA at 0.68 and 0.77 kb in human aortic, human pulmonary arterial, and human umbilical vein endothelial cell cultures. Primer extension anal. showed that the difference in size (.apprx.90 bp) between the two transcripts is not due to a difference at the 5'-noncoding region. The amt. of MCP-1 transcripts increased dramatically in aortic endothelial cells when stimulated with recombinant IL-1.alpha. (100 units/mL), IL-1.beta. (100 units/mL), or TNF-.alpha. (200 ng/mL). Northern blot and slot blot anal. of RNA isolated from both the endothelium and the underlying vessel wall of freshly removed human arteries and veins showed MCP-1 transcripts. This observation demonstrates for the first time that MCP-1 is expressed not only in atherosclerotic human arteries but also in symptom free arteries and veins in vivo.
IT **124147-40-6**, Moncyte chemotactic protein (human aortic endothelium MCP-1)
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 9 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1993:488360 CAPLUS
DN 119:88360
TI Cloning and expression of cDNA for human JE cytokine for recombinant manufacture of the JE cytokine
IN Rollins, Barrett; Stiles, Charles; Wong, Gordon G.
PA Genetics Institute, Inc., USA; Dana Farber Cancer Institute
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5212073	A	19930518	US 89-351008	19890512
	US 5179078	A	19930112	US 91-701515	19910516
	US 5278287	A	19940111	US 93-46243	19930413
PRAI	US 89-351008		19890512		

AB The cDNA for human macrophage inflammatory protein 1-related cytokine JE (I) and its expression in bacterial or mammalian cells are claimed. I is useful for stimulating immune responsiveness and

wound healing. The cDNA for I was cloned from a human fibroblast cell line WI-38 cDNA library. The cDNA encodes a 99-residue protein, the 1st 29 amino acids of which have the characteristics of a signal peptide. COS cells contg. expression plasmid pMX-JE produced a heterogeneous mixt. of I with mol. wt. 15,000 to 18,000.

IT **124147-40-6**, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: BIOL (Biological study)
(amino acid sequence of and expression in COS cells of cDNA for)

L2 ANSWER 10 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1993:122995 CAPLUS
DN 118:122995
TI Manufacture of a monocyte chemotactic factor by expression of the cloned gene
IN Yamagishi, Junichi; Matsuo, Noriyuki; Fukui, Toshikazu; Yamada, Masaaki
PA Dainippon Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9219737	A1	19921112	WO 92-JP550	19920427
W: CA, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
JP 05260987	A2	19931012	JP 92-136213	19920428
CN 1066470	A	19921125	CN 92-103461	19920509
PRAI JP 91-135950		19910509		

AB Monocyte chemotactic factor is manufd. by expression of a cloned cDNA in Escherichia coli where it accumulates as inclusion bodies. A cDNA for monocyte chemotactic factor was placed under control of the trp operon promoter and introduced into E. coli where expression was induced in a complete medium with 3-indole acrylic acid. The protein was recovered from lysates as inclusion bodies making up .gtoreq.20% of the insol. protein of the cells. The initiator Met of these proteins was only rarely removed.

IT **124147-40-6**, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of, complete, and expression in Escherichia coli of cDNA for)

IT **124147-31-5DP**, Lymphokine MCP 1 (human protein moiety reduced), N-terminal deletion analogs **124147-31-5P**, Lymphokine MCP 1 (human protein moiety reduced) **146413-96-9P**
RL: PREP (Preparation)
(manuf. in Escherichia coli of)

L2 ANSWER 11 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1991:576698 CAPLUS
DN 115:176698
TI cDNA cloning and expression of genes for alleles and analogs of monocyte chemotactic factor
IN Furutani, Yasuji; Fukui, Toshikazu; Junichi, Yamagishi; Masaaki, Yamada; Matsushima, Kouji; Oppenheim, Joost
PA United States Dept. of Commerce, USA
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9007863	A1	19900726	WO 90-US40	19900102
	W: AU, ES, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	JP 03187380	A2	19910815	JP 89-65	19890101
	JP 02207788	A2	19900817	JP 89-26438	19890203
	CA 2006969	AA	19900701	CA 90-2006969	19900102
	AU 9048450	A1	19900813	AU 90-48450	19900102
	AU 642399	B2	19931021		
	EP 452391	A1	19911023	EP 90-901711	19900102
	EP 452391	B1	19970716		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 04501961	T2	19920409	JP 90-502276	19900102
	ES 2056753	A6	19941001	ES 90-50005	19900102
	AT 155526	E	19970815	AT 90-901711	19900102
	ES 2104600	T3	19971016	ES 90-901711	19900102

PRAI	JP 89-65	19890101
	JP 89-26438	19890203
	JP 89-126438	19890203
	WO 90-US40	19900102

AB CDNAs for allelic forms of human monocyte chemotactic factor (MCF) are cloned and expressed in Escherichia coli. The cDNA was cloned from a cDNA bank from a human promyelocytic leukemia cell line HL-60 using amino acid sequence-derived probes. Two alleles with a change at one amino acid residue were found. The cDNAs for the precursor and several forms of the protein with residues removed from the amino terminal region that had not lost MCF activity are manufd. and expressed in E. coli from the trp promoter.

IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced) **124147-40-6**, Lymphokine MCP 1 (human precursor protein moiety reduced) **132023-87-1**, 7-76-Lymphokine MCP 1 (human protein moiety reduced) **132023-88-2**, 4-76-Lymphokine MCP 1 (human protein moiety reduced) **132083-92-2**, 11-76-Lymphokine MCP 1 (human protein moiety reduced)

RL: BIOL (Biological study); PRP (Properties)
(amino acid sequence of and cloning and expression in Escherichia coli of cDNA for)

IT **124147-31-5D**, Lymphokine MCP 1 (human protein moiety reduced), amino-terminal 1-10 amino acids deletion derivs.
RL: PRP (Properties)
(gene for, expression in Escherichia coli of)

L2 ANSWER 12 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1991:21643 CAPLUS
DN 114:21643
TI A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF)
AU Bottazzi, Barbara; Colotta, Francesco; Sica, Antonio; Nobili, Nadia; Mantovani, Alberto
CS Ist. Ric. Farmacol. Mario Negri, Milan, 20157, Italy
SO Int. J. Cancer (1990), 45(4), 795-7
CODEN: IJCNAW; ISSN: 0020-7136
DT Journal
LA English
AB The complete nucleotide sequence and deduced amino acid sequence for TDCF cDNA from the prototypic TDCF-producing human 8387 sarcoma cell line were obtained. Comparison of the nucleotide sequence with that of MCP-1/MCAF disclosed that TDCF and MCP-1/MCAF are identical.
IT **124147-40-6**, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 13 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1990:585693 CAPLUS
DN 113:185693
TI Structure of human monocyte chemotactic protein gene and its regulation by TPA
AU Shyy, Yeun Jund; Li, Yi Shuan; Kolattukudy, P. E.
CS Ohio State Biotechnol. Cent., Ohio State Univ., Columbus, OH, 43210, USA
SO Biochem. Biophys. Res. Commun. (1990), 169(2), 346-51
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English
AB Monocyte chemotactic protein released by endothelium plays an important role in inflammation, immune reactions, and probably in atherogenesis. To elucidate the regulation of synthesis of this protein, the human gene encoding its synthesis was cloned and its nucleotide sequence was detd. This gene is composed of 3 exons of 145, 118, and 478 bp in length with 2 introns of 800 and 385 bp in length. Phorbol ester responsive elements (TRE) were found 129 and

157 bp upstream from the translation initiation site and the phorbol ester treatment of endothelial cell cultures elevated the transcript level of this gene.

IT **124147-40-6**, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 14 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1990:401553 CAPLUS
DN 113:1553
TI Monocyte-attracting peptides: purification, characterization, and cDNA cloning
IN Yoshimura, T.; Robinson, E. A.; Appella, E.; Leonard, E. J.
PA United States Dept. of Health and Human Services, USA
SO U. S. Pat. Appl., 67 pp. Avail. NTIS Order No. PAT-APPL-6-330 446.
CODEN: XAXXAV
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 330446	A0	19890715	US 89-330446	19890330
	CA 2006964	AA	19900731	CA 90-2006964	19900102
	WO 9008777	A1	19900809	WO 90-US39	19900102
	W: AU, ES, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	AU 9050480	A1	19900824	AU 90-50480	19900102
	US 5714578	A	19980203	US 95-466280	19950606
PRAI	US 89-304234		19890131		
	US 89-330446		19890330		
	WO 90-US39		19900102		

AB Peptides that act as attractants for monocytes are isolated and characterized from a human glioma cell line and human peripheral blood leukocytes and cDNA for the glioma attractants cloned. The peptides are useful in the treatment of infection and inflammatory disease and as neoplasm inhibitors. Purifn. of the protein was by dye-affinity chromatog. and HPLC and cDNA cloning was by std. methods using amino acid sequence-derived probes. Dose-response curves showed an optimal attractant concn. of 10-9M.

IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

IT **124147-40-6**, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of and cloning in Escherichia coli of cDNA for)

L2 ANSWER 15 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1990:176677 CAPLUS
DN 112:176677
TI Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions
AU Robinson, Elizabeth A.; Yoshimura, Teizo; Leonard, Edward J.; Tanaka, Shuji; Griffin, Patrick R.; Shabanowitz, Jeffrey; Hunt, Donald F.; Appella, Ettore
CS Lab. Cell Biol., Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1989), 86(6), 1850-4
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
AB In a study of the structural basis for leukocyte specificity of chemoattractants, the complete amino acid sequence of human glioma-derived monocyte chemotactic factor (GDCF-2), a peptide that attracts human monocytes but not neutrophils, was detd. The choice of a tumor cell product for anal. was dictated by its relative abundance and an amino acid compn. indistinguishable from that of lymphocyte-derived chemotactic factor (LDCF), the agonist thought to account for monocyte accumulation in cellular immune reactions. By a combination of Edman degrdn. and mass spectrometry, it was established that GDCF-2 comprises 76 amino acid residues, commencing at the N terminus with pyroglutamic acid. The peptide contains 4 half-cystines, at positions 11, 12, 36, and 52, which create a pair of loops, clustered at the disulfide bridges. The relative positions of the half-cystines are almost identical to those of monocyte-derived neutrophil chemotactic factor (MDNCF), a peptide of similar mass but with only 24% sequence identity to GDCF. Thus, GDCF and MDNCF have a similar gross secondary structure because of the loops formed by the clustered disulfides, and their different leukocyte specificities are most likely detd. by the large differences in primary sequence.
IT **126463-99-8**, Lymphokine MCP 1 (human U-I05MG cell protein moiety) **126545-73-1**, Lymphokine MCP 1 (human U-I05MG cell protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 16 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1990:71309 CAPLUS
DN 112:71309
TI The human homolog of the JE gene encodes a monocyte secretory protein
AU Rollins, Barrett J.; Stier, Peter; Ernst, Timothy; Wong, Gordon G.
CS Dana-Farber Cancer Inst., Harvard Med. Sch., Boston, MA, 02115, USA
SO Mol. Cell. Biol. (1989), 9(11), 4687-95
CODEN: MCEBD4; ISSN: 0270-7306
DT Journal

LA English
AB The mouse fibroblast gene, JE, was one of the first platelet-derived growth factor-inducible genes to be described as such. The protein encoded by JE (mJE) is the prototype of a large family of secreted, cytokinelike glycoproteins, all of whose members are induced by a mitogenic or activation signal in monocytes, macrophages, and T lymphocytes; JE is the only member to have been identified in firbroblasts. The identification of a human homolog for murine JE, cloned from human fibroblasts, is reported here. The protein predicted by the coding sequence of human JE (hJE) is 55 amino acids shorter than mJE, and its sequence is identical to that of a purified monocyte chemoattractant. When expressed in COS cells, the human JE cDNA directed the secretion of N-glycosylated proteins of Mr 16,000 to 18,000 as well as proteins of Mr 15,500, 15,000, and 13,000. Antibodies raised against mJE recognized these hJE species, all of which were secreted by human fibroblasts. The hJE expression was stimulated in HL60 cells during phorbol myristate acetate-induced monocytoid differentiation. However, resting human monocytes constitutively secreted hJE; treatment with gamma interferon did not enhance hJE expression in monocytes, and treatment with phorbol myristate acetate or lipopolysaccharide inhibited its expression. Thus, human JE encodes yet another member of the large family of JE-related cytokinelike proteins, in this case a novel human monocyte and fibroblast secretory protein.
IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced)
124147-40-6, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 17 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1990:17070 CAPLUS
DN 112:17070
TI Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE
AU Yoshimura, Teizo; Yuhki, Naoya; Moore, Stephen K.; Appella, Ettore; Lerman, Michael I.; Leonard, Edward J.
CS Lab. Immunobiol., Natl. Cancer Inst., Frederick, MD, 21701, USA
SO FEBS Lett. (1989), 244(2), 487-93
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English
AB A cDNA encoding human monocyte chemoattractant protein-1 (MCP-1), previously isolated from glioma cell line culture fluid, was analyzed. Screening of a cDNA library from total poly(A) RNA of glioma cell line U-105MG yielded a clone that coded for the entire MCP-1. Nucleotide sequence anal. and comparison with the amino acid sequence of purified MCP-1 showed that the cDNA clone comprises a

53-nucleotide 5'-non-coding region, an open reading frame coding for a 99-residue protein of which the last 76 residues correspond exactly to pure MCP-1, and a 389-nucleotide 3'-untranslated region. The hydrophobicity of the first 23 residues is typical of a signal peptide. Southern blot anal. of human and animal genomic DNA showed that there is a single MCP-1 gene, which is conserved in several primates. MCP-1 mRNA was induced in human peripheral blood mononuclear leukocytes by PHA, LPS, and IL-1, but not by IL-2, TNF, or IFN-.gamma.. Among proteins with similar sequences, the coding regions of MCP-1 and mouse JE show 68% identity. This suggests that MCP-1 is the human homolog of the mouse competence gene JE.

IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced)
124147-40-6, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 18 OF 18 CAPLUS COPYRIGHT 1999 ACS
AN 1990:17058 CAPLUS
DN 112:17058
TI Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF)
AU Furutani, Yasuji; Nomura, Hideki; Notake, Mitsue; Oyamada, Yoshihiro; Fukui, Toshikazu; Yamada, Masaaki; Larsen, Christian G.; Oppenheim, Joost J.; Matsushima, Koji
CS Res. Lab., Dainippon Pharm. Co. Ltd., Suita, 564, Japan
SO Biochem. Biophys. Res. Commun. (1989), 159(1), 249-55
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English
AB Some cDNA clones having a nucleotide sequence encoding a human monocyte chemotactic and activating factor (MCAF) were isolated and sequenced. The amino acid sequence deduced from the nucleotide sequence reveals the primary structure of the MCAF precursor to be composed of a putative signal peptide sequence of 23 amino acid residues and a mature MCAF sequence of 76 amino acid residues. The amino acid sequence of MACF showed 25-55% homol. with other members of an inducible cytokine family, including macrophage inflammatory protein and some putative polypeptide mediators known as JE, LD78 RANmTES, and TCA-3. This suggests that MCAF is a member of family of factors involved in immune and inflammatory responses.

IT **124147-31-5**, Lymphokine MCP 1 (human protein moiety reduced)
124147-40-6, Lymphokine MCP 1 (human precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

E23 THROUGH E38 ASSIGNED

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=> fil reg

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DICTIONARY FILE UPDATES: 31 MAR  99  HIGHEST RN 220764-97-6

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=> d que

L3            16 SEA FILE=REGISTRY ABB=ON  PLU=ON  (124147-31-5/BI OR
                 124147-40-6/BI OR 188627-69-2/BI OR 126463-99-8/BI OR
                 126545-73-1/BI OR 132023-87-1/BI OR 132023-88-2/BI OR
                 132083-92-2/BI OR 146413-96-9/BI OR 163548-47-8/BI OR
                 175644-97-0/BI OR 188044-57-7/BI OR 188627-71-6/BI OR
                 220382-62-7/BI OR 220382-68-3/BI OR 220382-73-0/BI)

=> s l3 and l1

L4            16 L3 AND L1

=> d 1-16 .bevreg2

L4   ANSWER 1 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   220382-73-0  REGISTRY
CN   9-76-Monocyte chemoattractant protein-1 [9-threonine] (human) (9CI)
     (CA INDEX NAME)
CI   MAN
SQL  68

SEQ      1 TTCCYNFTNR KISVQRLASY RRITSSKCPK EAVIFKTIVA KEICADPKQK
                                                   =========

        51 WVQDSMDHLD KQTQTPKT
           ===
HITS AT:   42-53

REFERENCE   1:  130:167179

L4   ANSWER 2 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   220382-68-3  REGISTRY
CN   9-76-Monocyte chemoattractant protein-1 [9-alanine] (human) (9CI)
     (CA INDEX NAME)
```

CI MAN
SQL 68

SEQ 1 ATCCYNFTNR KISVQRLASY RRITSSKCPK EAVIFKTIVA KEICADPKQK
=========

51 WVQDSMDHLD KQTQTPKT
===

HITS AT: 42-53

REFERENCE 1: 130:167179

L4 ANSWER 3 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **220382-62-7** REGISTRY
CN 9-76-Monocyte chemoattractant protein-1 [9-glycine] (human) (9CI) (CA INDEX NAME)
CI MAN
SQL 68

SEQ 1 GTCCYNFTNR KISVQRLASY RRITSSKCPK EAVIFKTIVA KEICADPKQK
=========

51 WVQDSMDHLD KQTQTPKT
===

HITS AT: 42-53

REFERENCE 1: 130:167179

L4 ANSWER 4 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **188627-71-6** REGISTRY
CN 8-76-Monocyte chemoattractant protein-1 (human) (9CI) (CA INDEX NAME)
CI MAN
SQL 69

SEQ 1 PVTCCYNFTN RKISVQRLAS YRRITSSKCP KEAVIFKTIV AKEICADPKQ
========

51 KWVQDSMDHL DKQTQTPKT
====

HITS AT: 43-54

REFERENCE 1: 126:246815

L4 ANSWER 5 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **188627-69-2** REGISTRY
CN 9-76-Monocyte chemoattractant protein-1 (human) (9CI) (CA INDEX NAME)
CI MAN
SQL 68

SEQ 1 VTCCYNFTNR KISVQRLASY RRITSSKCPK EAVIFKTIVA KEICADPKQK

```
                                                          =========
        51 WVQDSMDHLD KQTQTPKT
           ===
HITS AT:   42-53

REFERENCE   1:  130:167179

REFERENCE   2:  126:246815

L4   ANSWER 6 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   188044-57-7  REGISTRY
CN   Monocyte chemoattractant protein-1 (Canis familiaris) (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   GenBank U29653-derived protein GI 1144186
CN   Monocyte chemoattractant protein-1 (dog)
CI   MAN
SQL  101

SEQ      1 MKVSAALLCL LLIAAALTTQ VLTQPDAIIS PVTCCYTLTN KKISIQRLAS
        51 YKRVTSSKCP KEAVIFKTVL NKEICADPKQ KWVQDSMAHL DKKSQTQTAK
                                  ======== ====
       101 P
HITS AT:   73-84

REFERENCE   1:  126:210456

L4   ANSWER 7 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   175644-97-0  REGISTRY
CN   Lymphokine MCP 1 (human) (9CI)  (CA INDEX NAME)
CI   MAN
SQL  76

SEQ      1 QPDAINAPVT CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE
                                                              =
        51 ICADPKQKWV QDSMDHLDKQ TQTPKT
           ========== =
HITS AT:   50-61

REFERENCE   1:  124:290261

L4   ANSWER 8 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   163548-47-8  REGISTRY
CN   Lymphokine MCP-1 (human monocyte chemoattractant 1 fragment) (9CI)
     (CA INDEX NAME)
CI   MAN
SQL  99

SEQ      1 MKVSAALLCL LLIAATFIPQ GKAQPDAINA PVTCCYNFTN RKISVQRLAS
                               Searcher  :  Shears   308-4994
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```
        51 YRRITSSKCP KEAVIFKTIV AKEICADPKQ KWVQDSMDHL DKQTQTPKT
                                   ======== ====
HITS AT:    73-84

REFERENCE   1:  123:984

L4   ANSWER 9 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   146413-96-9  REGISTRY
CN   Lymphokine MCP 1 (human protein moiety reduced), N-L-methionyl-
     (9CI)  (CA INDEX NAME)
CI   MAN
SQL  77

SEQ      1 MQPDAINAPV TCCYNFTNRK ISVQRLASYR RITSSKCPKE AVIFKTIVAK
        51 EICADPKQKW VQDSMDHLDK QTQTPKT
           ========== ==
HITS AT:    51-62

REFERENCE   1:  118:122995

L4   ANSWER 10 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   132083-92-2  REGISTRY
CN   11-76-Lymphokine MCP 1 (human protein moiety reduced) (9CI)  (CA
     INDEX NAME)
CI   MAN
SQL  66

SEQ      1 CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE ICADPKQKWV
                                                  = ==========
        51 QDSMDHLDKQ TQTPKT
           =
HITS AT:    40-51

REFERENCE   1:  115:176698

L4   ANSWER 11 OF 16  REGISTRY  COPYRIGHT 1999 ACS
RN   132023-88-2  REGISTRY
CN   4-76-Lymphokine MCP 1 (human protein moiety reduced) (9CI)  (CA
     INDEX NAME)
CI   MAN
SQL  73

SEQ      1 AINAPVTCCY NFTNRKISVQ RLASYRRITS SKCPKEAVIF KTIVAKEICA
                                                       ====
        51 DPKQKWVQDS MDHLDKQTQT PKT
           ========
HITS AT:    47-58

REFERENCE   1:  115:176698
```

L4 ANSWER 12 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **132023-87-1** REGISTRY
CN 7-76-Lymphokine MCP 1 (human protein moiety reduced) (9CI) (CA INDEX NAME)
CI MAN
SQL 70

SEQ 1 APVTCCYNFT NRKISVQRLA SYRRITSSKC PKEAVIFKTI VAKEICADPK
=======

51 QKWVQDSMDH LDKQTQTPKT
=====
HITS AT: 44-55

REFERENCE 1: 115:176698

L4 ANSWER 13 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **126545-73-1** REGISTRY
CN Lymphokine MCP 1 (human U-I05MG cell protein moiety reduced) (9CI) (CA INDEX NAME)
CI MAN
SQL 76

SEQ 1 XPDAINAPVT CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE
=

51 ICADPKQKWV QDSMDHLDKQ TQTPKT
========== =
HITS AT: 50-61

REFERENCE 1: 112:176677

L4 ANSWER 14 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **126463-99-8** REGISTRY
CN Lymphokine MCP 1 (human U-I05MG cell protein moiety) (9CI) (CA INDEX NAME)
CI MAN
SQL 76

SEQ 1 XPDAINAPVT CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE
=

51 ICADPKQKWV QDSMDHLDKQ TQTPKT
========== =
HITS AT: 50-61

REFERENCE 1: 112:176677

L4 ANSWER 15 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **124147-40-6** REGISTRY
CN Lymphokine MCP 1 (human precursor protein moiety reduced) (9CI) (CA

INDEX NAME)
OTHER NAMES:
CN Monocyte chemotactic protein (human aortic endothelium MCP-1)
CI MAN
SQL 99

SEQ 1 MKVSAALLCL LLIAATFIPQ GLAQPDAINA PVTCCYNFTN RKISVQRLAS
51 YRRITSSKCP KEAVIFKTIV AKEICADPKQ KWVQDSMDHL DKQTQTPKT
======== ====

HITS AT: 73-84

REFERENCE 1: 120:131889

REFERENCE 2: 119:88360

REFERENCE 3: 118:122995

REFERENCE 4: 115:176698

REFERENCE 5: 114:21643

REFERENCE 6: 113:185693

REFERENCE 7: 113:1553

REFERENCE 8: 112:71309

REFERENCE 9: 112:17070

REFERENCE 10: 112:17058

L4 ANSWER 16 OF 16 REGISTRY COPYRIGHT 1999 ACS
RN **124147-31-5** REGISTRY
CN Lymphokine MCP 1 (human protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Lymphokine MCP 1 (human clone pMC(01-04) reduced)
CI MAN
SQL 76

SEQ 1 QPDAINAPVT CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE
=
51 ICADPKQKWV QDSMDHLDKQ TQTPKT
========== =
HITS AT: 50-61

REFERENCE 1: 122:282234

REFERENCE 2: 122:26110

REFERENCE 3: 118:122995

REFERENCE 4: 115:176698

REFERENCE 5: 113:1553

REFERENCE 6: 112:71309

REFERENCE 7: 112:17070

REFERENCE 8: 112:17058

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FILE 'HOME' ENTERED AT 12:01:12 ON 31 MAR 1999

Mertz
08/927939
Seq. ID 1

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**************************************************************************
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**************************************************************************

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    ...p   protein - protein database search, using Smith-Waterman algorithm

Run on:          Tue Mar 30 17:40:00 1999;  MasPar time 2.89 Seconds
                                            67.259 Million cell updates/sec
Tabular output not generated.

    ...e:        >US-08-927-939-1
Description:     (1-12) from US08927939.pep
Perfect Score:   97
Sequence:        1 EICADPKQKWVQ 12

Scoring table:   PAM 150
                 Gap 15

Searched:        131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
                 Listing first 45 summaries

Database:        a-geneseq32
                   1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
                   8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
                   14:part14 15:part15 16:part16 17:part17 18:part18
                   19:part19 20:part20 21:part21 22:part22 23:part23
                   24:part24 25:part25 26:part26 27:part27 28:part28
                   29:part29

Statistics:      Mean 18.390;  Variance 63.736;  scale 0.289

     Pred. No. is the number of results predicted by chance to have a
     score greater than or equal to the score of the result being printed,
     and is derived by analysis of the total score distribution.

                                SUMMARIES

Result          % Query
  No.  Score    Match  Length DB  ID          Description              Pred. No.
 ------------------------------------------------------------------------------
    1     97   100.0      66 24  W13598      Monocyte chemoattract    4.79e-03
    2     97   100.0      67 24  W13599      Monocyte chemoattract    4.79e-03
    3     97   100.0      68 24  W13597      Monocyte chemoattract    4.79e-03
    4     97   100.0      69 14  R87678      des(2-8) MCP-1.          4.79e-03
    5     97   100.0      69 24  W13596      Monocyte chemoattract    4.79e-03
    6     97   100.0      76 15  R87680      Monocyte chemotactic     4.79e-03
    7     97   100.0      76 21  W11131      Mature human monocyte    4.79e-03
    8     97   100.0      76  5  R28660      MCF.                     4.79e-03
    9     97   100.0      76  1  P90292      Peptide from human gl    4.79e-03
   10     97   100.0      76 14  R87675      (28-Asp) MCP-1.          4.79e-03
   11     97   100.0      76 20  W09374      Monocyte chemotactic     4.79e-03
   12     97   100.0      76 10  R53398      Sense MCP-1.             4.79e-03
   13     97   100.0      76 14  R87677      (3-Ala) MCP-1.           4.79e-03
   14     97   100.0      76 14  R87676      (24-Arg) MCP-1.          4.79e-03
   15     97   100.0      77 15  R86859      Mature MCP-1.            4.79e-03
   16     97   100.0      99  5  R28663      MCF.                     4.79e-03
   17     97   100.0      99  2  P95387      Human monocyte chemo-    4.79e-03
   18     97   100.0      99 13  R70800      Chemoattractant prote    4.79e-03
   19     97   100.0      99 14  R73914      Human monocyte chemoa    4.79e-03
   20     93    95.9      71 27  W22675      Drol3+ chemokine beta    1.28e-02
   21     93    95.9      75 27  W22673      Bac 3 chemokine beta1    1.28e-02
   22     93    95.9      77 27  W22672      Bac 2 chemokine beta1    1.28e-02
   23     93    95.9      79 27  W22674      Drol1/2 chemokine bet    1.28e-02
   24     93    95.9      82 27  W22671      Bac 1 chemokine beta1    1.28e-02
   25     93    95.9      82 24  W17665      Stem cell mobilising     1.28e-02
   26     93    95.9      98 17  R93087      Human chemokine beta-    1.28e-02
   27     93    95.9      98 28  W30191      Monocyte chemotactic     1.28e-02
   28     93    95.9      98 27  W22670      Human chemokine beta1    1.28e-02
   29     93    95.9      99  2  R06398      Human MCF precursor.     1.28e-02
   30     92    94.8      76  5  R26580      Sequence of bovine P6    1.63e-02
   31     92    94.8      99  5  R26581      Sequence of P6 precur    1.63e-02
   32     90    92.8      67 14  R73915      Human monocyte chemoa    2.65e-02
   33     90    92.8      99 13  R70801      Chemoattractant prote    2.65e-02
   34     90    92.8     109  2  R24353      Cytokine encoded by c    2.65e-02
   35     89    91.8      82 29  W44721      Amino acid sequence o    3.38e-02
   36     89    91.8      97 23  W10099      Human eotaxin.           3.38e-02
   37     89    91.8      97 21  W00667      Pancreas expressed ch    3.38e-02
   38     89    91.8      97 24  W14990      Human eosinocyte CC t    3.38e-02
   39     84    86.6      73 13  R70252      Eotaxin chemoattracta    1.13e-01
   40     84    86.6      96 24  W14991      Guinea pig eosinocyte    1.13e-01
   41     82    84.5      72 13  R70804      Chemoattractant MCP-2    1.82e-01
   42     82    84.5     109 29  W42072      Human MC proprotein.     1.82e-01
   43     82    84.5     109 26  W26655      Human beta-chemokine     1.82e-01
   44     81    83.5      89 14  R76127      Macrophage inflammato    2.31e-01
   45     81    83.5     395 26  W23347      Novel murine CX3C 395    2.31e-01

                              ALIGNMENTS

RESULT    1
ID   W13598 standard; peptide; 66 AA.
AC   W13598;
DT   07-NOV-1997  (first entry)
DE   Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW   Truncated monocyte chemoattractant protein-1; inhibitor;
KW   receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW   chronic inflammatory disease; arthritis; arteriosclerosis;
KW   lung disease.
OS   Homo sapiens.
PN   CA2152141-A.
PD   20-DEC-1996.
PF   19-JUN-1995; 152141.
PR   19-JUN-1995; CA-152141.
PA   (LEWI/) LEWIS I.
PI   Gong J,  Lewis I;
DR   WPI; 97-165844/16.
PT   N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
PT   lacks MCP-1 activity and inhibits receptor binding, useful as
PT   anti-inflammatory agent
PS   Disclosure; Page 5; 27pp; English.
CC   The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC   chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC   N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC   as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC   receptor. The analogue is useful as an anti-inflammatory agent to block
CC   the effects of MCP-1 which is an inflammatory mediator causing migration
CC   of monocytes and other cells e.g. basophils and lymphocytes into
CC   inflammation sites. MCP-1 has been implicated in allergic and chronic
CC   inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC   diseases. The analogue competes more effectively with MCP-1 for binding
CC   MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC   providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC   with 75:1 for prior art mutant 7ND.
SQ   Sequence   66 AA;

  Query Match          100.0%;  Score 97;  DB 24;  Length 66;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches    12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     40 eicadpkqkwvq 51
          ||||||||||||
```

```
Qy      1 EICADPKQKWVQ 12


RESULT    2
ID   W13599 standard; peptide; 67 AA.
AC   W13599;
DT   07-NOV-1997  (first entry)
DE   Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW   Truncated monocyte chemoattractant protein-1; inhibitor;
KW   receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW   chronic inflammatory disease; arthritis; arteriosclerosis;
KW   lung disease.
OS   Homo sapiens.
PN   CA2152141-A.
PD   20-DEC-1996.
PF   19-JUN-1995; 152141.
PR   19-JUN-1995; CA-152141.
PA   (LEWI/) LEWIS I.
PI   Gong J,  Lewis I;
DR   WPI; 97-165844/16.
PT   N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
PT   lacks MCP-1 activity and inhibits receptor binding, useful as
PT   anti-inflammatory agent
PS   Disclosure; Page 5; 27pp; English.
CC   The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC   chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC   N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC   as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC   receptor. The analogue is useful as an anti-inflammatory agent to block
CC   the effects of MCP-1 which is an inflammatory mediator causing migration
CC   of monocytes and other cells e.g. basophils and lymphocytes into
CC   inflammation sites. MCP-1 has been implicated in allergic and chronic
CC   inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC   diseases. The analogue competes more effectively with MCP-1 for binding
CC   MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC   providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC   with 75:1 for prior art mutant 7ND.
SQ   Sequence   67 AA;

  Query Match          100.0%;  Score 97;  DB 24;  Length 67;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     41 eicadpkqkwvq 52
           ||||||||||||
        1 EICADPKQKWVQ 12


RESULT    3
ID   W13597 standard; peptide; 68 AA.
AC   W13597;
DT   07-NOV-1997  (first entry)
DE   Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW   Truncated monocyte chemoattractant protein-1; inhibitor;
KW   receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW   chronic inflammatory disease; arthritis; arteriosclerosis;
KW   lung disease.
OS   Homo sapiens.
PN   CA2152141-A.
PD   20-DEC-1996.
PF   19-JUN-1995; 152141.
PR   19-JUN-1995; CA-152141.
PA   (LEWI/) LEWIS I.
PI   Gong J,  Lewis I;
DR   WPI; 97-165844/16.
PT   N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
PT   lacks MCP-1 activity and inhibits receptor binding, useful as
PT   anti-inflammatory agent
PS   Claim 7; Page 5; 27pp; English.
CC   The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC   chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC   N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC   as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC   receptor. The analogue is useful as an anti-inflammatory agent to block
CC   the effects of MCP-1 which is an inflammatory mediator causing migration
CC   of monocytes and other cells e.g. basophils and lymphocytes into
CC   inflammation sites. MCP-1 has been implicated in allergic and chronic
CC   inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC   diseases. The analogue competes more effectively with MCP-1 for binding
CC   MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC   providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC   with 75:1 for prior art mutant 7ND.
SQ   Sequence   68 AA;

  Query Match          100.0%;  Score 97;  DB 24;  Length 68;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     42 eicadpkqkwvq 53
           ||||||||||||
        1 EICADPKQKWVQ 12


RESULT    4
ID   R87678 standard; protein; 69 AA.
AC   R87678;
DT   21-FEB-1996  (first entry)
DE   des(2-8) MCP-1.
KW   monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW   angioplasty.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   modified_site   2..3
FT                   /note= "amino acids 2-8 of the native protein have
FT                   been deleted between these residues"
FT   disulfide_bond  4..29
FT   disulfide_bond  5..45
PN   WO9513295-A1.
PD   18-MAY-1995.
PF   07-NOV-1994; U12874.
PR   12-NOV-1993; US-152301.
PA   (DAND ) DANA FARBER CANCER INST INC.
PI   Rollins B,  Zhang YJ;
DR   WPI; 95-215051/28.
PT   Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT   capable of inhibiting the monocyte chemo-attractant activity of
PT   endogenous MCP-1 and can be used to treat restenosis
PS   Claim 4; Page 11; 22pp; English.
CC   Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC   that they inhibit the monocyte chemoattractant activity of endogenous
CC   MCP-1, provided that the derivative has not been modified by the
CC   substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC   are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC   by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC   acids 2-8. The present sequence is a specifically claimed human MCP-1
CC   derivative based on the parent protein disclosed in Rollins, Molecular
CC   and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC   The peptides can be used to prevent restenosis, e.g. in patients
CC   undergoing coronary artery angioplasty.
SQ   Sequence   69 AA;

  Query Match          100.0%;  Score 97;  DB 14;  Length 69;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     43 eicadpkqkwvq 54
           ||||||||||||
        1 EICADPKQKWVQ 12


RESULT    5
ID   W13596 standard; peptide; 69 AA.
AC   W13596;
DT   07-NOV-1997  (first entry)
DE   Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW   Truncated monocyte chemoattractant protein-1; inhibitor;
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KW   receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW   chronic inflammatory disease; arthritis; arteriosclerosis;
KW   lung disease.
OS   Homo sapiens.
PN   CA2152141-A.
PD   20-DEC-1996.
PF   19-JUN-1995; 152141.
PR   19-JUN-1995; CA-152141.
PA   (LEWI/) LEWIS I.
PI   Gong J,  Lewis I;
DR   WPI; 97-165844/16.
PT   N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
PT   lacks MCP-1 activity and inhibits receptor binding, useful as
PT   anti-inflammatory agent
PS   Claim 5; Page 5; 27pp; English.
CC   The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC   chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC   N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC   as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC   receptor. The analogue is useful as an anti-inflammatory agent to block
CC   the effects of MCP-1 which is an inflammatory mediator causing migration
CC   of monocytes and other cells e.g. basophils and lymphocytes into
     inflammation sites. MCP-1 has been implicated in allergic and chronic
     inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC   diseases. The analogue competes more effectively with MCP-1 for binding
CC   MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC   providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC   with 75:1 for prior art mutant 7ND.
SQ   Sequence   69 AA;

  Query Match          100.0%;  Score 97;  DB 24;  Length 69;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative   0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     43 eicadpkqkwvq 54
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    6
ID   R87680 standard; protein; 76 AA.
AC   R87680;
DT   05-MAR-1996  (first entry)
DE   Monocyte chemotactic activating factor for use as wound remedy.
KW   monocyte chemotactic activating factor; MCAF; wound remedy.
OS   Homo sapiens.
PN   WO9507710-A1.
PD   23-MAR-1995.
PF   13-SEP-1994; J01512.
PR   13-SEP-1993; JP-227385.
     (TORA ) TORAY IND INC.
     Matsushima K,  Naruto M;
DR   WPI; 95-131181/17.
PT   Wound treatment using monocyte chemotactic factor - has potent
PT   therapeutic effect on skin wounds and ulcers
PS   Disclosure; Page 12; 22pp; Japanese.
CC   The invention relates to a new remedy for curing wounds which, instead
CC   of comprising a growth factor, comprises a monocyte chemotactic
CC   activating factor (MCAF) or its variants or derivatives. The factor has
CC   potent effect on skin wounds and ulcers. The present sequence is human
CC   MCAF, the activity of which is exemplified as the new remedy.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 15;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative   0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     50 eicadpkqkwvq 61
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    7
ID   W11131 standard; protein; 76 AA.
AC   W11131;
DT   10-JUN-1997  (first entry)
DE   Mature human monocyte chemoattractant protein-1 (MCP-1).
KW   MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW   IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW   radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW   restenosis.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   misc_difference 1
FT                   /note= "X= any amino acid"
PN   US5605671-A.
PD   25-FEB-1997.
PF   05-OCT-1992; 956862.
PR   05-OCT-1992; US-956863.
PR   05-OCT-1992; US-956862.
PR   29-APR-1994; US-235659.
PA   (MLCW ) MALLINCKRODT MEDICAL INC.
PA   (UNMI ) UNIV MICHIGAN.
PI   Kunkel SL,  Lyle LR,  Strieter RM;
DR   WPI; 97-153541/14.
PT   Radio:labelling neutrophil-activating peptide(s) - for imaging
PT   targetted delivery of radioactive agent
PS   Example 10; Column 19-20; 15pp; English.
CC   W11131 represents mature human monocyte chemoattractant protein-1
CC   (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC   imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC   to accumulate at a target site (having MCP-1 receptors) in the animal
CC   and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC   chemokine carrying either iodine-123 or iodine-131 can be used in the
CC   method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC   which recognises interleukin-8 receptors and is labelled with
CC   technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC   The method can be used for imaging a site of infection, inflammation,
CC   neoplasm, atheromatous lesion or restenosis.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 21;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative   0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     50 eicadpkqkwvq 61
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    8
ID   R28660 standard; Protein; 76 AA.
AC   R28660;
DT   24-MAR-1993  (first entry)
DE   MCF.
KW   Plasmid; monocyte chemotactic factor; MCF; translation;
KW   termination; terminator; initiation; ribosome binding site;
KW   RBS; promoter; tryptophan; repressor.
OS   Synthetic.
PN   WO9219737-A.
PD   12-NOV-1992.
PF   27-APR-1992; J00550.
PR   09-MAY-1991; JP-135950.
PA   (DAIN ) DAINIPPON PHARM CO LTD.
PI   Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR   WPI; 92-398864/48.
DR   N-PSDB; Q30745-46.
PT   Prodn. of polypeptide(s) having monocyte chemotactic activity -
PT   using expression plasmids with E. coli elements and specific
PT   E.coli strains
PS   Claim 1; Page 48 + Page 36; 56pp; English.
CC   An expression plasmid, pHM483, for producing MCF(76) consisting
CC   of 76 amino acids was constructed.  The prod. can be used for e.g.
CC   treating bacterial infectious diseases.
SQ   Sequence   76 AA;
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  Query Match          100.0%;  Score 97;  DB 5;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      50 eicadpkqkwvq 61
           ||||||||||||
Qy       1 EICADPKQKWVQ 12


RESULT    9
ID   P90292 standard; peptide; 76 AA.
AC   P90292;
DT   17-JAN-1990  (first entry)
DE   Peptide from human glioma  cell line U-105MG.
KW   Glioma; leucocyte; chemotaxis; neoplasms.
OS   Human.
     Key             Location/Qualifiers
     modified_site   1
FT                   /label= OTHER
FT                   /note= "pyroglutamic acid"
PN   US7304234-A.
PD   20-JUL-1989.
PF   31-JAN-1989; 030423.
PR   31-JAN-1989; US-304234.
PA   (USSH) US Dept. of Health and Human.
PI   Yoshimura T; Robinson E; Appella E; Leonard E.
DR   WPI; 89-263501/36.
PT   New peptide with specific chemotactic activity for monocytes - isolated
PT   from glioma or leucocyte cells, useful for treating infections and
PT   neoplasms.
PS   Disclosure; page 3; 46pp; English.
CC   Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
CC   leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 1;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      50 eicadpkqkwvq 61
           ||||||||||||
Qy       1 EICADPKQKWVQ 12


RESULT   10
     R87675 standard; protein; 76 AA.
AC   R87675;
DT   21-FEB-1996  (first entry)
DE   (28-Asp) MCP-1.
KW   monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW   angioplasty.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   modified_site   28
FT                   /note= "Tyr in the native sequence is replaced by Asp"
FT   disulfide_bond  11..36
FT   disulfide_bond  12..52
PN   WO9513295-A1.
PD   18-MAY-1995.
PF   07-NOV-1994; U12874.
PR   12-NOV-1993; US-152301.
PA   (DAND ) DANA FARBER CANCER INST INC.
PI   Rollins B,  Zhang YJ;
DR   WPI; 95-215051/28.
PT   Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT   capable of inhibiting the monocyte chemo-attractant activity of
PT   endogenous MCP-1 and can be used to treat restenosis
PS   Claim 3; Page 11; 22pp; English.
CC   Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC   that they inhibit the monocyte chemoattractant activity of endogenous
CC   MCP-1, provided that the derivative has not been modified by the
CC   substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC   are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC   by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC   acids 2-8. The present sequence is a specifically claimed human MCP-1
CC   derivative based on the parent protein disclosed in Rollins, Molecular
CC   and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC   The peptides can be used to prevent restenosis, e.g. in patients
CC   undergoing coronary artery angioplasty.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 14;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      50 eicadpkqkwvq 61
           ||||||||||||
Qy       1 EICADPKQKWVQ 12


RESULT   11
ID   W09374 standard; Protein; 76 AA.
AC   W09374;
DT   21-MAR-1997  (first entry)
DE   Monocyte chemotactic protein 1.
KW   Human; monocyte chemoattractant protein; antisense; inhibition;
KW   mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
KW   vascular restenosis.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   misc_difference 1
FT                   /note= "encoded by codon CAG"
FT   misc_difference 51
FT                   /note= "encoded by codon AUG"
FT   misc_difference 65
FT                   /note= "encoded by codon CAC"
PN   US5571713-A.
PD   05-NOV-1996.
PF   22-OCT-1992; 965678.
PR   22-OCT-1992; US-965678.
PR   27-MAY-1994; US-250958.
PA   (UNMI ) UNIV MICHIGAN.
PI   Kunkel SL,  Lyle LR,  Strieter RM;
DR   WPI; 96-505405/50.
DR   N-PSDB; T48092.
PT   Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
PT   useful for therapy or diagnosis of restenosis, etc.
PS   Disclosure; Column 13-14; 16pp; English.
CC   This is the amino acid sequence of the human monocyte chemoattractant
CC   protein (MCP)-1, a member of the C-C chemokine family.  MCP-1 is a potent
CC   stimulator of monocyte chemotaxis and is produced by injured vascular
CC   smooth cells thus attracting monocytes and macrophages which infiltrate
CC   the injured area and release growth factor.  This causes proliferation of
CC   the vascular smooth cells resulting in restenosis. The gene sequence can
CC   be used to generate antisense sequences e.g. T48093-7, which can be used
CC   to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
CC   macrophages, or smooth muscle cells, esp. in order to prevent vascular
CC   restenosis.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 20;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      50 eicadpkqkwvq 61
           ||||||||||||
Qy       1 EICADPKQKWVQ 12


RESULT   12
ID   R53398 standard; Protein; 76 AA.
AC   R53398;
DT   15-DEC-1994  (first entry)
DE   Sense MCP-1.
KW   Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW   radionuclide; vascular restenosis; alpha; beta; emitting isotope;
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KW   diagnosis; monocytes; vascular injury.
OS   Mammalian.
FH   Key             Location/Qualifiers
FT   misc_difference 1
FT                   /note= "Unspecified amino acid"
PN   WO9409128-A.
PD   28-APR-1994.
PF   20-OCT-1993; U10074.
PR   22-OCT-1992; US-965678.
PA   (MLCW ) MALLINCKRODT MEDICAL INC.
PI   Lyle LR;
DR   WPI; 94-151314/18.
PT   Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT   peptide(s) - is used for inhibiting, treating or imaging areas of
PT   vascular restenosis or potential restenosis
PS   Disclosure; Page 5; 42pp; English.
CC   The sequences given in R53398-99 represent sense and antisense
CC   monocyte chemotactic protein-1 (MCP-1) respectively.  These
CC   oligonucleotides may be labelled with a radionuclide and use
CC   therapeutically for the treatment of vascular restenosis.
CC   Radiolabelled antisense MCP-1 compounds may be constructed using high
CC   energy alpha or beta emitting isotopes rather than the gamma
     emitters cutomarily used for diagnostic purposes.  Antisense MCP-1
     compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC   monocytes are not attracted to the area of vascular injury and
CC   proliferation of vascular cells is inhibited.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 10;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     50 eicadpkqkwvq 61
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT   13
ID   R87677 standard; protein; 76 AA.
AC   R87677;
DT   21-FEB-1996  (first entry)
DE   (3-Ala) MCP-1.
KW   monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW   angioplasty.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   modified_site   3
FT                   /note= "Asp in the native sequence is replaced by Ala"
FT   disulfide_bond  11..36
FT   disulfide_bond  12..52
     WO9513295-A1.
     18-MAY-1995.
PF   07-NOV-1994; U12874.
PR   12-NOV-1993; US-152301.
PA   (DAND ) DANA FARBER CANCER INST INC.
PI   Rollins B,  Zhang YJ;
DR   WPI; 95-215051/28.
PT   Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT   capable of inhibiting the monocyte chemo-attractant activity of
PT   endogenous MCP-1 and can be used to treat restenosis
PS   Claim 6; Page 11; 22pp; English.
CC   Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC   that they inhibit the monocyte chemoattractant activity of endogenous
CC   MCP-1, provided that the derivative has not been modified by the
CC   substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC   are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC   by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC   acids 2-8. The present sequence is a specifically claimed human MCP-1
CC   derivative based on the parent protein disclosed in Rollins, Molecular
CC   and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC   The peptides can be used to prevent restenosis, e.g. in patients
CC   undergoing coronary artery angioplasty.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 14;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     50 eicadpkqkwvq 61
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT   14
ID   R87676 standard; protein; 76 AA.
AC   R87676;
DT   21-FEB-1996  (first entry)
DE   (24-Arg) MCP-1.
KW   monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW   angioplasty.
OS   Homo sapiens.
FH   Key             Location/Qualifiers
FT   modified_site   24
FT                   /note= "Arg in the native sequence is replaced by Phe"
FT   disulfide_bond  11..36
FT   disulfide_bond  12..52
PN   WO9513295-A1.
PD   18-MAY-1995.
PF   07-NOV-1994; U12874.
PR   12-NOV-1993; US-152301.
PA   (DAND ) DANA FARBER CANCER INST INC.
PI   Rollins B,  Zhang YJ;
DR   WPI; 95-215051/28.
PT   Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT   capable of inhibiting the monocyte chemo-attractant activity of
PT   endogenous MCP-1 and can be used to treat restenosis
PS   Claim 5; Page 11; 22pp; English.
CC   Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC   that they inhibit the monocyte chemoattractant activity of endogenous
CC   MCP-1, provided that the derivative has not been modified by the
CC   substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC   are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC   by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC   acids 2-8. The present sequence is a specifically claimed human MCP-1
CC   derivative based on the parent protein disclosed in Rollins, Molecular
CC   and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC   The peptides can be used to prevent restenosis, e.g. in patients
CC   undergoing coronary artery angioplasty.
SQ   Sequence   76 AA;

  Query Match          100.0%;  Score 97;  DB 14;  Length 76;
  Best Local Similarity 100.0%;  Pred. No. 4.79e-03;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     50 eicadpkqkwvq 61
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT   15
ID   R86859 standard; Protein; 77 AA.
AC   R86859;
DT   20-MAR-1996  (first entry)
DE   Mature MCP-1.
KW   Antisense; monocyte chemotactic protein-1; MCP-1;
KW   "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW   monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW   proliferation; restenosis; balloon angioplasty.
OS   Homo sapiens.
PN   WO9519167-A1.
PD   20-JUL-1995.
PF   13-JAN-1995; U00605.
PR   14-JAN-1994; US-182917.
PA   (MLCW ) MALLINCKRODT MEDICAL INC.
PI   Lyle LR,  Thomas-Miller B;
DR   WPI; 95-263703/34.
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DR N-PSDB; T03528.
PT New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure; Page 5; 50pp; English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemoattractant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extemely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA;

Query Match 100.0%; Score 97; DB 15; Length 77;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadpkqkwvq 62
||||||||||||
Qy 1 EICADPKQKWVQ 12

Search completed: Tue Mar 30 17:40:38 1999
Job time : 38 secs.

(TM)

Release 3.1A John F. Collins, Biocomputing Research Unit.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Tue Mar 30 17:39:21 1999; MasPar time 3.33 Seconds
135.096 Million cell updates/sec

Tabular output not generated.

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Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWVQ 12

Scoring table: PAM 150
Gap 15

Searched: 116738 seqs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: pir58
1:pir1 2:pir2 3:pir3 4:pir4

Statistics: Mean 24.661; Variance 36.070; scale 0.684

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description	Pred. No.
1	97	100.0	99	2	A60299	monocyte chemoattract	1.33e-08
2	96	99.0	99	2	JC2136	monocyte chemoattract	2.24e-08
3	92	94.8	99	2	A39296	monocyte chemoattract	1.78e-07
4	92	94.8	99	2	JC2336	monocyte chemoattract	1.78e-07
5	91	93.8	125	2	I46857	monocyte chemoattract	2.97e-07
6	90	92.8	109	2	A54678	monocyte chemotactic	4.96e-07
7	88	90.7	99	2	JC2417	monocyte chemoattract	1.37e-06
8	88	90.7	120	2	I48147	monocyte chemoattract	1.37e-06
9	86	88.7	97	2	JC4912	eotaxin - human	3.77e-06
10	84	86.6	95	2	JN0841	interleukin-8 - dog	1.03e-05
11	84	86.6	96	2	JC2478	eotaxin - rat	1.03e-05
12	84	86.6	96	2	I48099	eotaxin precursor - g	1.03e-05
13	84	86.6	101	2	I46997	interleukin-8 - sheep	1.03e-05
14	84	86.6	101	2	S42496	interleukin 8 - sheep	1.03e-05
15	84	86.6	103	2	A53096	interleukin-8 precurs	1.03e-05
16	84	86.6	103	2	A44253	alveolar macrophage c	1.03e-05
17	83	85.6	92	2	I52322	macrophage inflammato	1.69e-05
18	82	84.5	99	2	JC5295	monocyte chemotactic	2.78e-05
19	81	83.5	101	2	I46871	interleukin-8 - rabbi	4.55e-05
20	80	82.5	148	2	A30209	PDGF-inducible JE gly	7.44e-05
21	76	78.4	92	2	A32393	macrophage inflammato	5.18e-04
22	76	78.4	148	2	S07723	immediate-early serum	5.18e-04
23	75	77.3	89	2	A53497	pre-B-cell growth-sti	8.37e-04
24	75	77.3	89	2	I53416	interleukin-8 homolog	8.37e-04
25	75	77.3	93	2	G01540	cytokine SDF-1-beta -	8.37e-04
26	75	77.3	93	2	I81182	cytokine - mouse	8.37e-04
27	75	77.3	99	2	A37034	interleukin-8 precurs	8.37e-04
28	75	77.3	101	2	I48148	Neutrophil attractant	8.37e-04
29	74	76.3	91	1	A46539	monocyte chemoattract	1.35e-03
30	72	74.2	50	2	C60407	monocyte adherence-in	3.47e-03
31	72	74.2	92	1	A31767	macrophage inflammato	3.47e-03
32	72	74.2	92	2	A30574	macrophage inflammato	3.47e-03
33	72	74.2	93	2	B35673	LD78-beta protein pre	3.47e-03
34	70	72.2	120	2	JE0177	lymphocyte and monocy	8.81e-03
35	69	71.1	92	2	I46730	immune activation gen	1.40e-02
36	68	70.1	91	1	A28815	monocyte chemoattract	2.21e-02
37	68	70.1	97	2	A48093	monocytic cytokine FI	2.21e-02
38	68	70.1	114	1	ETMSL	lymphotactin precurso	2.21e-02
39	64	66.0	760	2	S55520	Chitin synthetase I -	1.34e-01
40	63	64.9	103	2	I50417	RSV-induced protein -	2.09e-01
41	63	64.9	103	2	A26736	transformation-induce	2.09e-01
42	62	63.9	92	2	C30552	macrophage inflammato	3.24e-01
43	61	62.9	114	1	ETHUL	lymphotactin precurso	5.01e-01
44	60	61.9	117	2	S57175	hypothetical protein	7.70e-01
45	60	61.9	460	2	E64019	hypothetical protein	7.70e-01

ALIGNMENTS

RESULT 1
ENTRY A60299 #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor
CONTAINS glioma-derived chemotactic factor 2 (GDCF-2)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998
ACCESSIONS A35474; A33476; S03339; I51841; A60299; A32300; A32396; A34561; I57488; JC1096
REFERENCE A35474
#authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its regulation by TPA.
#cross-references MUID:90290466
#accession A35474
##molecule_type DNA
##residues 1-99 ##label SHY
##cross-references GB:M37719; NID:g187447; PID:g487124
REFERENCE A33476
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4695
#title The human homolog of the JE gene encodes a monocyte secretory protein.
#cross-references MUID:90097880
#accession A33476
##molecule_type mRNA
##residues 1-99 ##label ROL
##cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701; PID:g386961
REFERENCE S03339
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
#journal FEBS Lett. (1989) 244:487-493
#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
#cross-references MUID:89153605
#accession S03339
##status not compared with conceptual translation
##molecule_type mRNA
##residues 1-99 ##label YOS
##cross-references GB:X14768; NID:g34513; PID:g34514

```
     ##experimental_source glioma cell line U-105MG
REFERENCE        I51841
   #authors      Yoshimura, T.; Leonard, E.J.
   #journal      Adv. Exp. Med. Biol. (1991) 305:47-56
   #title        Human monocyte chemoattractant protein-1 (MCP-1).
   #cross-references MUID:92095166
   #accession    I51841
      ##status        preliminary; translated from GB/EMBL/DDBJ
      ##molecule_type mRNA
      ##residues      1-99 ##label YO2
      ##cross-references GB:S71513; NID:g240867; PID:g240868
REFERENCE        A60299
   #authors      Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
                   A.
   #journal      Int. J. Cancer (1990) 45:795-797
   #title        A chemoattractant expressed in human sarcoma cells
                   (tumor-derived chemotactic factor, TDCF) is identical to
                   monocyte chemoattractant protein-1/monocyte chemotactic and
                   activating factor (MCP-1/MCAF).
   #accession    A60299
      ##status        not compared with conceptual translation
      ##molecule_type mRNA
      ##residues      1-99 ##label BOT
REFERENCE        A32300
   #authors      Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.;
                   Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
   #journal      Biochem. Biophys. Res. Commun. (1989) 159:249-255
   #title        Cloning and sequencing of the cDNA for human monocyte
                   chemotactic and activating factor (MCAF).
   #cross-references MUID:89165862
   #accession    A32300
      ##status        not compared with conceptual translation
      ##molecule_type mRNA
      ##residues      1-99 ##label FUR
      ##cross-references GB:M24545; NID:g187434; PID:g307163
REFERENCE        A32396
   #authors      Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
                   Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
   #journal      Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
   #title        Complete amino acid sequence of a human monocyte
                   chemoattractant, a putative mediator of cellular immune
                   reactions.
   #cross-references MUID:89184525
   #accession    A32396
      ##molecule_type protein
      ##residues      'X',25-99 ##label ROB
REFERENCE        A34561
   #authors      Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
                   Damme, J.
   #journal      Biochem. Biophys. Res. Commun. (1990) 167:904-909
   #title        Identification of the monocyte chemotactic protein from human
                   osteosarcoma cells and monocytes: detection of a novel
                   N-terminally processed form.
   #cross-references MUID:90211336
   #accession    A34561
      ##molecule_type protein
      ##residues      29-33,'XX',36-52;82-92 ##label DEC
REFERENCE        I57488
   #authors      Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
                   J.F.; Kolattukudy, P.E.
   #journal      Mol. Cell. Biochem. (1993) 126:61-68
   #title        The expression of monocyte chemotactic protein (MCP-1) in
                   human vascular endothelium in vitro and in vivo.
   #cross-references MUID:94150478
   #accession    I57488
      ##status        translated from GB/EMBL/DDBJ
      ##molecule_type mRNA
      ##residues      1-99 ##label LIY
      ##cross-references GB:S69738; NID:g545464; PID:g545465
REFERENCE        JC1096
   #authors      Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
   #journal      Chinese J. Microbiol. Immunol. (1994) 14:29-32
   #title        The PCR, cloning and sequencing of human monocyte
                   chemoattractant protein-1 (MCP-1) gene.
   #accession    JC1096
      ##molecule_type mRNA
      ##residues      24-28,'Q',30-99 ##label YEQ
GENETICS
   #gene         GDB:SCYA2
      ##cross-references GDB:125279; OMIM:158105
   #map_position 17q11.2-17q12
CLASSIFICATION   #superfamily macrophage inflammatory protein
KEYWORDS         cytokine; glycoprotein; inflammation; pyroglutamic acid
FEATURE
   1-23               #domain signal sequence #status predicted #label SIG\
   24-99              #product monocyte chemoattractant protein 1 #status
                        experimental #label MAT\
   29-99              #product monocyte chemoattractant protein 1, short form
                        #status experimental #label MAT2\
   24                 #modified_site pyrrolidone carboxylic acid (Gln) (in
                        mature form) #status experimental\
   37                 #binding_site carbohydrate (Asn) (covalent) #status
                        predicted
SUMMARY          #length 99  #molecular-weight 11025  #checksum 7984

  Query Match           100.0%;  Score 97;  DB 2;  Length 99;
  Best Local Similarity 100.0%;  Pred. No. 1.33e-08;
  Matches    12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 EICADPKQKWVQ 84
           ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    2
ENTRY            JC2136     #type complete
TITLE            monocyte chemoattractant protein-1 precursor - pig
ORGANISM         #formal_name Sus scrofa domestica #common_name domestic pig
DATE             30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
                   08-Sep-1997
ACCESSIONS       JC2136; S57498
REFERENCE        JC2136
   #authors      Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
                   Scheit, K.H.
   #journal      Biochem. Biophys. Res. Commun. (1994) 199:962-968
   #title        Porcine luteal cells express monocyte chemoattractant
                   protein-1 (MCP-1): Analysis by polymerase chain reaction
                   and cDNA cloning.
   #accession    JC2136
      ##molecule_type mRNA
      ##residues      1-99 ##label HOS
REFERENCE        S57497
   #authors      Zach, O.
   #submission   submitted to the EMBL Data Library, July 1994
   #accession    S57498
      ##status        preliminary
      ##molecule_type mRNA
      ##residues      1-99 ##label ZAC
      ##cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION   #superfamily macrophage inflammatory protein
KEYWORDS         glycoprotein
FEATURE
   1-23               #domain signal sequence #status predicted #label SIG\
   24-99              #product monocyte chemoattractant protein-1 #status
                        predicted #label MAT\
   94                 #binding_site carbohydrate (Asn) (covalent) #status
                        predicted
SUMMARY          #length 99  #molecular-weight 10976  #checksum 9768

  Query Match           99.0%;  Score 96;  DB 2;  Length 99;
  Best Local Similarity 91.7%;  Pred. No. 2.24e-08;
  Matches    11;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 EICAEPKQKWVQ 84
           ||||:|||||||
Qy      1 EICADPKQKWVQ 12
```

```
RESULT    3
ENTRY             A39296     #type complete
TITLE             monocyte chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES   monocyte chemotactic factor 1; seminal plasma protein P6
ORGANISM          #formal_name Bos primigenius taurus #common_name cattle
DATE              03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
                    31-Oct-1997
ACCESSIONS        A39296; B39296
REFERENCE         A39296
   #authors       Wempe, F.; Henschen, A.; Scheit, K.H.
   #journal       DNA Cell Biol. (1991) 10:671-679
   #title         Gene expression and cDNA cloning identified a major basic
                    protein constituent of bovine seminal plasma as bovine
                    monocyte-chemoattractant protein-1 (MCP-1).
   #cross-references MUID:92096117
   #accession     A39296
      ##molecule_type mRNA
      ##residues      1-99 ##label WEM
      ##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
   #accession     B39296
      ##molecule_type protein
      ##residues      50-68,'X',70-74,'X',76 ##label WE2
      ##experimental_source seminal vesicle
CLASSIFICATION    #superfamily macrophage inflammatory protein
KEYWORDS          glycoprotein
FEATURE
   1-23               #domain signal sequence #status predicted #label SIG\
   24-99              #product monocyte chemoattractant protein 1 #status
                        predicted #label MAT\
   94                 #binding_site carbohydrate (Asn) (covalent) #status
                        predicted
SUMMARY           #length 99  #molecular-weight 11114  #checksum 9401

  Query Match            94.8%;  Score 92;  DB 2;  Length 99;
  Best Local Similarity  91.7%;  Pred. No. 1.78e-07;
  Matches    11;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db      73 ELCADPKQKWVQ 84
           |:||||||||||
Qy       1 EICADPKQKWVQ 12


RESULT    4
ENTRY             JC2336     #type complete
TITLE             monocyte chemoattractant protein-1 - bovine
ORGANISM          #formal_name Bos primigenius indicus #common_name zebu cattle
DATE              20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
                    03-May-1996
   CESSIONS       JC2336
   RENCE          JC2336
   #authors       Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
   #journal       Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
   #title         Characterization of the bovine monocyte chemoattractant
                    protein-1 gene.
   #accession     JC2336
      ##molecule_type protein
      ##residues      1-99 ##label WEM
GENETICS
   #gene          MCP-1
   #introns       26/1; 65/2
CLASSIFICATION    #superfamily macrophage inflammatory protein
SUMMARY           #length 99  #molecular-weight 11114  #checksum 9401

  Query Match            94.8%;  Score 92;  DB 2;  Length 99;
  Best Local Similarity  91.7%;  Pred. No. 1.78e-07;
  Matches    11;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db      73 ELCADPKQKWVQ 84
           |:||||||||||
Qy       1 EICADPKQKWVQ 12
```

```
RESULT    5
ENTRY             I46857     #type complete
TITLE             monocyte chemoattractant protein-1 - rabbit
ORGANISM          #formal_name Oryctolagus cuniculus #common_name domestic
                    rabbit
DATE              14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
                    09-May-1997
ACCESSIONS        I46857
REFERENCE         I46857
   #authors       Yoshimura, T.; Yuhki, N.
   #journal       J. Immunol. (1991) 146:3483-3488
   #title         Neutrophil attractant/activation protein-1 and monocyte
                    chemoattractant protein-1 in rabbit: cDNA cloning and their
                    expression in spleen cells.
   #cross-references MUID:91225489
   #accession     I46857
      ##status        preliminary; translated from GB/EMBL/DDBJ
      ##molecule_type mRNA
      ##residues      1-125 ##label YOS
      ##cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION    #superfamily macrophage inflammatory protein
SUMMARY           #length 125  #molecular-weight 13776  #checksum 4498

  Query Match            93.8%;  Score 91;  DB 2;  Length 125;
  Best Local Similarity 100.0%;  Pred. No. 2.97e-07;
  Matches    11;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      74 ICADPKQKWVQ 84
           ||||||||||||
Qy       2 ICADPKQKWVQ 12


RESULT    6
ENTRY             A54678     #type complete
TITLE             monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES   monocyte chemoattractant protein MCP-3
ORGANISM          #formal_name Homo sapiens #common_name man
DATE              28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
                    24-Sep-1998
ACCESSIONS        A54678; JC1478; S32222
REFERENCE         A54678
   #authors       Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
                    Speleman, F.; Laureys, G.; Van Damme, J.
   #journal       Genomics (1994) 21:403-408
   #title         The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
                    assignment to the C-C chemokine gene cluster on chromosome
                    17q11.2-q12.
   #accession     A54678
      ##molecule_type DNA
      ##residues      1-109 ##label OPD
      ##cross-references GB:X72309
REFERENCE         JC1478
   #authors       Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
                    J.
   #journal       Biochem. Biophys. Res. Commun. (1993) 191:535-542
   #title         Human monocyte chemotactic protein-3 (MCP-3): Molecular
                    cloning of the cDNA and comparison with other chemokines.
   #accession     JC1478
      ##molecule_type mRNA
      ##residues      1-109 ##label OP2
REFERENCE         S32222
   #authors       Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun,
                    P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita,
                    N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D.
   #submission    submitted to the EMBL Data Library, March 1993
   #description   Molecular cloning of MCP-3: a human monocyte-derived monocyte
                    chemoattractant protein.
   #accession     S32222
      ##molecule_type mRNA
      ##residues      1-109 ##label MIN
      ##cross-references EMBL:X71087; NID:g288396; PID:g288397
COMMENT     This protein induces proteinase secretion and chemotaxis by
```

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          macrophages and monocytes.
GENETICS
   #gene          GDB:SCYA7; SCYA6; MCP-3
      ##cross-references GDB:138473; OMIM:158106
   #map_position 17q11-17q12
   #introns       36/1; 75/2
CLASSIFICATION   #superfamily macrophage inflammatory protein
KEYWORDS         cytokine; glycoprotein; inflammation
FEATURE
   1-33               #domain signal sequence #status predicted #label SIG\
   34-109             #product monocyte chemotactic protein 3 #status
                        predicted #label MAT\
   39                 #binding_site carbohydrate (Asn) (covalent) #status
                        predicted
SUMMARY          #length 109  #molecular-weight 12356  #checksum 1535

    ery Match            92.8%;  Score 90;  DB 2;  Length 109;
    st Local Similarity  91.7%;  Pred. No. 4.96e-07;
  Matches    11;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      83 EICADPTQKWVQ 94
           |||||| |||||
Qy       1 EICADPKQKWVQ 12


RESULT    7
ENTRY            JC2417     #type complete
TITLE            monocyte chemoattractant protein-2 - pig
ORGANISM         #formal_name Sus scrofa domestica #common_name domestic pig
DATE             24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
                   03-May-1996
ACCESSIONS       JC2417
REFERENCE        JC2417
   #authors      Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
                   Scheit, K.H.
   #journal      Biochem. Biophys. Res. Commun. (1994) 205:148-153
   #title        Porcine luteal cells express monocyte chemoattractant
                   protein-2 (MCP-2): Analysis by cDNA cloning and northern
                   analysis.
   #accession    JC2417
      ##molecule_type mRNA
      ##residues      1-99 ##label HOS
      ##experimental_source corpus luteum
CLASSIFICATION   #superfamily macrophage inflammatory protein
   TURE
      23              #domain signal sequence #status predicted #label SIG\
   24-99              #product monocyte chemoattractant protein-2 #status
                        predicted #label MAT
SUMMARY          #length 99  #molecular-weight 10903  #checksum 7556

  Query Match            90.7%;  Score 88;  DB 2;  Length 99;
  Best Local Similarity  83.3%;  Pred. No. 1.37e-06;
  Matches    10;  Conservative    1;  Mismatches   1;  Indels   0;  Gaps   0;

Db      73 EVCADPQQKWVQ 84
           |:|||| |||||
Qy       1 EICADPKQKWVQ 12


RESULT    8
ENTRY            I48147     #type complete
TITLE            monocyte chemoattractant protein-1 - guinea pig
ORGANISM         #formal_name Cavia porcellus #common_name guinea pig
DATE             02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                   09-May-1997
ACCESSIONS       I48147
REFERENCE        I48147
   #authors      Yoshimura, T.
   #journal      J. Immunol. (1993) 150:5025-5032
   #title        cDNA cloning of guinea pig monocyte chemoattractant protein-1
                   and expression of the recombinant protein.
   #cross-references MUID:93267104
   #accession    I48147
      ##status        preliminary; translated from GB/EMBL/DDBJ
      ##molecule_type mRNA
      ##residues      1-120 ##label RES
      ##cross-references GB:L04985; NID:g349820; PID:g349821
GENETICS
   #gene          MCP-1
CLASSIFICATION   #superfamily macrophage inflammatory protein
SUMMARY          #length 120  #molecular-weight 13741  #checksum 9252

  Query Match            90.7%;  Score 88;  DB 2;  Length 120;
  Best Local Similarity  83.3%;  Pred. No. 1.37e-06;
  Matches    10;  Conservative    1;  Mismatches   1;  Indels   0;  Gaps   0;

Db      71 EVCADPTQKWVQ 82
           |:|||| |||||
Qy       1 EICADPKQKWVQ 12


RESULT    9
ENTRY            JC4912     #type complete
TITLE            eotaxin - human
ORGANISM         #formal_name Homo sapiens #common_name man
DATE             01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
                   08-Sep-1997
ACCESSIONS       JC4912
REFERENCE        JC4912
   #authors      Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
                   Christophers, E.; Schroeder, J.M.
   #journal      Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
   #title        Human dermal fibroblasts express eotaxin: Molecular cloning,
                   mRNA expression, and identification of eotaxin sequence
                   variants.
   #accession    JC4912
      ##status        preliminary
      ##molecule_type mRNA
      ##residues      1-97 ##label BAR
      ##cross-references EMBL:Z75668; NID:g1531982; PID:e251275; PID:g1531983
      ##experimental_source dermal fibroblast
COMMENT     This protein has eosinophil specific chemotatic activity.
CLASSIFICATION   #superfamily macrophage inflammatory protein
KEYWORDS         fibroblast
FEATURE
   1-18               #domain signal sequence #status predicted #label SIG\
   19-97              #product eotaxin #status predicted #label MAT
SUMMARY          #length 97  #molecular-weight 10790  #checksum 448

  Query Match            88.7%;  Score 86;  DB 2;  Length 97;
  Best Local Similarity  75.0%;  Pred. No. 3.77e-06;
  Matches     9;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      71 DICADPKKRWVQ 82
           :|||||| :|||
Qy       1 EICADPKQKWVQ 12


RESULT   10
ENTRY            JN0841     #type complete
TITLE            interleukin-8 - dog
ORGANISM         #formal_name Canis lupus familiaris #common_name dog
DATE             19-May-1994 #sequence_revision 19-May-1994 #text_change
                   12-Apr-1995
ACCESSIONS       JN0841
REFERENCE        JN0841
   #authors      Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.;
                   Suzuki, K.
   #journal      Gene (1993) 131:305-306
   #title        Cloning of a canine gene homologous to the human
                   interleukin-8-encoding gene.
   #accession    JN0841
      ##molecule_type DNA
      ##residues      1-95 ##label ISH
COMMENT     This protein is a polymorphonuclear leukocyles chemotactic factor
              and is involved in the host defense function.
```

```
GENETICS
   #introns       22/1; 67/2
CLASSIFICATION    #superfamily beta-thromboglobulin
SUMMARY           #length 95  #molecular-weight 10611  #checksum 3157

  Query Match           86.6%;  Score 84;  DB 2;  Length 95;
  Best Local Similarity  75.0%;  Pred. No. 1.03e-05;
  Matches     9;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      75 EVCLDPKEKWVQ 86
           |:| |||:||||
Qy       1 EICADPKQKWVQ 12


RESULT   11
ENTRY             JC2478     #type complete
TITLE             eotaxin - rat
ORGANISM          #formal_name Rattus norvegicus #common_name Norway rat
DATE              21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
                    08-Sep-1997
ACCESSIONS        JC2478
REFERENCE         JC2478
    authors       Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
                    N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
   #journal       Biochem. Biophys. Res. Commun. (1994) 205:788-794
   #title         Eotaxin: Cloning of an eosinophil chemoattractant cytokine
                    and increased mRNA expression in allergen-challenged
                    guinea-pig lungs.
   #accession     JC2478
      ##molecule_type mRNA
      ##residues      1-96 ##label JOS
      ##cross-references EMBL:X77603; NID:g602551; PID:g602552
COMMENT     This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION    #superfamily macrophage inflammatory protein
KEYWORDS          glycoprotein
FEATURE
   1-23                #domain signal sequence #status predicted #label SIG\
   24-96               #product eotaxin #status predicted #label MAT\
   93                  #binding_site carbohydrate (Thr) (covalent) #status
                         predicted
SUMMARY           #length 96  #molecular-weight 10695  #checksum 7329

  Query Match           86.6%;  Score 84;  DB 2;  Length 96;
  Best Local Similarity  90.9%;  Pred. No. 1.03e-05;
  Matches    10;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      71 ICADPKKKWVQ 81
           |||||| ||||
Qy       2 ICADPKQKWVQ 12


    LT   12
ENTRY             I48099     #type complete
TITLE             eotaxin precursor - guinea pig
ORGANISM          #formal_name Cavia porcellus #common_name guinea pig
DATE              02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                    09-May-1997
ACCESSIONS        I48099
REFERENCE         I48099
   #authors       Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
                    Leder, P.
   #journal       J. Exp. Med. (1995) 181:1211-1216
   #title         Constitutive and allergen-induced expression of eotaxin mRNA
                    in the guinea pig lung.
   #cross-references MUID:95173589
   #accession     I48099
      ##status        preliminary; translated from GB/EMBL/DDBJ
      ##molecule_type mRNA
      ##residues      1-96 ##label RES
      ##cross-references EMBL:U18941; NID:g687655; PID:g687656
CLASSIFICATION    #superfamily macrophage inflammatory protein
SUMMARY           #length 96  #molecular-weight 10753  #checksum 7236

  Query Match           86.6%;  Score 84;  DB 2;  Length 96;
  Best Local Similarity  90.9%;  Pred. No. 1.03e-05;
  Matches    10;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      71 ICADPKKKWVQ 81
           |||||| ||||
Qy       2 ICADPKQKWVQ 12


RESULT   13
ENTRY             I46997     #type complete
TITLE             interleukin-8 - sheep
ORGANISM          #formal_name Ovis sp. #common_name sheep
DATE              21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
                    09-May-1997
ACCESSIONS        I46997
REFERENCE         I46997
   #authors       Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
   #journal       Immunol. Cell Biol. (1994) 72:398-405
   #title         Cloning, sequencing, expression and inflammatory activity in
                    skin of ovine interleukin-8.
   #cross-references MUID:95137691
   #accession     I46997
      ##status        preliminary; translated from GB/EMBL/DDBJ
      ##molecule_type mRNA
      ##residues      1-101 ##label SEO
      ##cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
   #gene          oIL-8
CLASSIFICATION    #superfamily beta-thromboglobulin
SUMMARY           #length 101  #molecular-weight 11292  #checksum 294

  Query Match           86.6%;  Score 84;  DB 2;  Length 101;
  Best Local Similarity  75.0%;  Pred. No. 1.03e-05;
  Matches     9;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      75 EVCLDPKEKWVQ 86
           |:| |||:||||
Qy       1 EICADPKQKWVQ 12


RESULT   14
ENTRY             S42496     #type complete
TITLE             interleukin 8 - sheep
ORGANISM          #formal_name Ovis orientalis aries, Ovis ammon aries
                    #common_name domestic sheep
DATE              06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
                    08-Sep-1997
ACCESSIONS        S42496
REFERENCE         S42496
   #authors       Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.;
                    Cordier, G.
   #submission    submitted to the EMBL Data Library, March 1994
   #description   Nucleotide sequence of ovine interleukin 8 cDNA using
                    polymerase chain reaction.
   #accession     S42496
      ##status        preliminary
      ##molecule_type mRNA
      ##residues      1-101 ##label LEG
      ##cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION    #superfamily beta-thromboglobulin
SUMMARY           #length 101  #molecular-weight 11292  #checksum 294

  Query Match           86.6%;  Score 84;  DB 2;  Length 101;
  Best Local Similarity  75.0%;  Pred. No. 1.03e-05;
  Matches     9;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      75 EVCLDPKEKWVQ 86
           |:| |||:||||
Qy       1 EICADPKQKWVQ 12


RESULT   15
```

```
ENTRY            A53096     #type complete
TITLE            interleukin-8 precursor - pig
ORGANISM         #formal_name Sus scrofa domestica #common_name domestic pig
DATE             02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
                   08-Sep-1997
ACCESSIONS       A53096
REFERENCE        A53096
   #authors      Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
                   M.J.; Weiss, D.J.; Murtaugh, M.P.
   #journal      J. Biol. Chem. (1994) 269:77-85
   #title        Regulation of interleukin-8 expression in porcine alveolar
                   macrophages by bacterial lipopolysaccharide.
   #accession    A53096
      ##status        preliminary
      ##molecule_type mRNA
      ##residues      1-103 ##label LIN
      ##cross-references GB:M86923; NID:g164520; PID:g164521
   SIFICATION    #superfamily beta-thromboglobulin
SUMMARY          #length 103  #molecular-weight 11633  #checksum 8835

  Query Match           86.6%;  Score 84;  DB 2;  Length 103;
  Best Local Similarity  75.0%;  Pred. No. 1.03e-05;
  Matches    9;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      75 EVCLDPKEKWVQ 86
           |:| |||:||||
Qy       1 EICADPKQKWVQ 12


Search completed: Tue Mar 30 17:39:40 1999
Job time : 19 secs.
```

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Tue Mar 30 17:37:49 1999; MasPar time 2.32 Seconds
138.808 Million cell updates/sec

Tabular output not generated.

le: >US-08-927-939-1
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWVQ 12

Scoring table: PAM 150
Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 25.450; Variance 32.065; scale 0.794

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description	Pred. No.
1	97	100.0	99	1	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	2.70e-10
2	97	100.0	101	1	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	2.70e-10
3	96	99.0	99	1	MCP1_PIG	MONOCYTE CHEMOTACTIC P	4.91e-10
4	94	96.9	99	1	MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	1.61e-09
5	93	95.9	98	1	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	2.92e-09
6	92	94.8	99	1	MCPA_BOVIN	MONOCYTE CHEMOTACTIC P	5.26e-09
7	91	93.8	125	1	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	9.47e-09
8	90	92.8	97	1	EOTA_RAT	EOTAXIN PRECURSOR (EOS	1.70e-08
9	90	92.8	97	1	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	1.70e-08
10	90	92.8	99	1	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	1.70e-08
11	89	91.8	97	1	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	3.05e-08
12	88	90.7	99	1	MCP2_PIG	MONOCYTE CHEMOTACTIC P	5.44e-08
13	88	90.7	120	1	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	5.44e-08
14	86	88.7	104	1	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	1.73e-07
15	84	86.6	96	1	EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	5.42e-07
16	84	86.6	101	1	IL8_CANFA	INTERLEUKIN-8 PRECURSO	5.42e-07
17	84	86.6	101	1	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	5.42e-07
18	84	86.6	103	1	IL8_PIG	INTERLEUKIN-8 PRECURSO	5.42e-07
19	83	85.6	92	1	MI1A_RAT	MACROPHAGE INFLAMMATOR	9.58e-07
20	82	84.5	74	1	MCPB_BOVIN	MONOCYTE CHEMOTACTIC P	1.69e-06
21	82	84.5	99	1	MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	1.69e-06
22	81	83.5	89	1	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	2.96e-06
23	81	83.5	101	1	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	2.96e-06
24	81	83.5	101	1	IL8_RABIT	INTERLEUKIN-8 PRECURSO	2.96e-06
25	80	82.5	148	1	MCP1_MOUSE	MONOCYTE CHEMOTACTIC P	5.18e-06
26	76	78.4	92	1	MI1A_MOUSE	MACROPHAGE INFLAMMATOR	4.73e-05
27	76	78.4	148	1	MCP1_RAT	MONOCYTE CHEMOTACTIC P	4.73e-05
28	75	77.3	89	1	SDF1_MOUSE	STROMAL CELL-DERIVED F	8.17e-05
29	75	77.3	93	1	SDF1_HUMAN	STROMAL CELL-DERIVED F	8.17e-05
30	75	77.3	97	1	MCP3_MOUSE	MONOCYTE CHEMOTACTIC P	8.17e-05
31	75	77.3	99	1	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	8.17e-05
32	75	77.3	101	1	IL8_CAVPO	INTERLEUKIN-8 PRECURSO	8.17e-05
33	74	76.3	91	1	SISD_MOUSE	T-CELL SPECIFIC RANTES	1.40e-04
34	74	76.3	92	1	SISD_RAT	T-CELL SPECIFIC RANTES	1.40e-04
35	72	74.2	92	1	MI1A_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
36	72	74.2	92	1	MI1B_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
37	72	74.2	93	1	MI10_HUMAN	TONSILLAR LYMPHOCYTE L	4.11e-04
38	72	74.2	96	1	MI3A_HUMAN	MACROPHAGE INFLAMMATOR	4.11e-04
39	71	73.2	101	1	IL8_CERTO	INTERLEUKIN-8 PRECURSO	6.99e-04
40	71	73.2	101	1	IL8_MACMU	INTERLEUKIN-8 PRECURSO	6.99e-04
41	70	72.2	93	1	CCC1_HUMAN	CHEMOKINE CC-1 PRECURS	1.19e-03
42	70	72.2	109	1	CCC3_HUMAN	CHEMOKINE CC-3 PRECURS	1.19e-03
43	69	71.1	90	1	MI1B_CHICK	MACROPHAGE INFLAMMATOR	2.00e-03
44	69	71.1	92	1	MI1B_RABIT	MACROPHAGE INFLAMMATOR	2.00e-03
45	69	71.1	114	1	LTN_RAT	LYMPHOTACTIN PRECURSOR	2.00e-03

ALIGNMENTS

RESULT 1
ID MCP1_HUMAN STANDARD; PRT; 99 AA.
AC P13500;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
DE (MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
DE A2).
GN SCYA2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 89165862.
RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90097880.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RL MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 89153605.
RA YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
RA LEONARD E.J.;
RL FEBS LETT. 244:487-493(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90290466.
RA SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE; 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94150478.
RA LI Y.S., SHYY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
RA KOLATTUKUDY P.E.;
RL MOL. CELL. BIOCHEM. 126:61-68(1993).

RN [7]
RP SEQUENCE FROM N.A.
RX MEDLINE; 92095166.
RA YOSHIMURA T., LEONARD E.J.;
RL ADV. EXP. MED. BIOL. 305:47-56(1991).
RN [8]
RP SEQUENCE OF 24-99.
RX MEDLINE; 89184525.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
RL PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
RN [9]
RP SEQUENCE OF 29-53 AND 82-92.
RX MEDLINE; 90211336.
RA DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
[10]
3D-STRUCTURE MODELLING.
RX MEDLINE; 91312872.
RA GRONENBORN A.M., CLORE G.M.;
RL PROTEIN ENG. 4:263-269(1991).
RN [11]
RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RX MEDLINE; 97143315.
RA LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.;
RL NAT. STRUCT. BIOL. 4:64-69(1997).
RN [12]
RP STRUCTURE BY NMR.
RX MEDLINE; 96234959.
RA HANDEL T.M., DOMAILLE P.J.;
RL BIOCHEMISTRY 35:6569-6584(1996).
RN [13]
RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RX MEDLINE; 96195223.
RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RL J. EXP. MED. 183:681-685(1996).
RN [14]
RP MUTAGENESIS.
RX MEDLINE; 94253189.
RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RL J. BIOL. CHEM. 269:15918-15924(1994).
RN [15]
RP SUBUNIT.
RX MEDLINE; 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
CC ATHEROSCLEROSIS.
CC -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
CC -!- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
CC CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS
CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; M31626; G386961; -.
DR EMBL; M30816; G386961; JOINED.
DR EMBL; M31625; G386961; JOINED.
DR EMBL; M24545; G307163; -.
DR EMBL; M28226; G338009; -.
DR EMBL; X14768; G34514; -.
DR EMBL; M37719; G487124; -.
DR EMBL; M28225; G338007; -.
DR EMBL; M28223; G338007; JOINED.
DR EMBL; M28224; G338007; JOINED.
DR EMBL; S69738; G545465; -.
DR EMBL; S71513; G240868; -.
DR EMBL; A17786; G641145; -.
DR PIR; A35474; A35474.
DR PIR; S03339; S03339.
DR PDB; 1DOK; 12-MAR-97.
DR PDB; 1DOL; 12-MAR-97.
DR PDB; 1DOM; 14-OCT-96.
DR PDB; 1DON; 14-OCT-96.
DR PDB; 1MCA; 15-OCT-94.
DR MIM; 158105; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 37 37 POTENTIAL.
FT VARIANT 76 76 A -> T.
FT MUTAGEN 24 24 MISSING: LOSS OF ACTIVITY.
FT MUTAGEN 25 32 MISSING: LOSS OF ACTIVITY.
FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
FT MUTAGEN 50 50 S->Q: 40% REDUCTION IN ACTIVITY.
FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
SQ SEQUENCE 99 AA; 11025 MW; 5355B695 CRC32;

Query Match 100.0%; Score 97; DB 1; Length 99;
Best Local Similarity 100.0%; Pred. No. 2.70e-10;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKQKWVQ 84
||||||||||||
Qy 1 EICADPKQKWVQ 12

RESULT 2
ID MCP1_CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE; 97176620.
RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K.A.,
RA LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -!- INDUCTION: BY TNF-ALPHA.
CC -!- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U29653; G1144186; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.

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FT   CHAIN        24    101       MONOCYTE CHEMOTACTIC PROTEIN 1.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     34     59       BY SIMILARITY.
FT   DISULFID     35     75       BY SIMILARITY.
SQ   SEQUENCE   101 AA;  11121 MW;  A7075B14 CRC32;

  Query Match           100.0%;  Score 97;  DB 1;  Length 101;
  Best Local Similarity 100.0%;  Pred. No. 2.70e-10;
  Matches   12;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 EICADPKQKWVQ 84
          ||||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    3
ID   MCP1_PIG       STANDARD;      PRT;    99 AA.
AC   P42831;
DT   01-NOV-1995 (REL. 32, CREATED)
DT   01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN   SCYA2.
OS   SUS SCROFA (PIG).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; ARTIODACTYLA.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 94183284.
RA   HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=BRAIN;
RA   ZACH O.R.F.;
RL   SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC       NEUTROPHILS.
CC   -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; Z48479; G683717; -.
DR   EMBL; X79416; G872313; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23       BY SIMILARITY.
FT   CHAIN        24     99       MONOCYTE CHEMOTACTIC PROTEIN 1.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     34     59       BY SIMILARITY.
FT   DISULFID     35     75       BY SIMILARITY.
SQ   SEQUENCE   99 AA;  10976 MW;  ECC3AFB4 CRC32;

  Query Match           99.0%;  Score 96;  DB 1;  Length 99;
  Best Local Similarity 91.7%;  Pred. No. 4.91e-10;
  Matches   11;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 EICAEPKQKWVQ 84
          ||||:|||||||
Qy      1 EICADPKQKWVQ 12


RESULT    4
ID   MCP2_BOVIN     STANDARD;      PRT;    99 AA.
AC   Q09141;
DT   01-NOV-1995 (REL. 32, CREATED)
DT   01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE   CHEMOATTRACTANT PROTEIN 2).
GN   SCYA8 OR MCP2.
OS   BOS TAURUS (BOVINE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; ARTIODACTYLA.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 94114084.
RA   WEMPE F., HANES J., SCHEIT K.H.;
RL   DNA CELL BIOL. 13:1-8(1994).
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC       CAN BIND HEPARIN.
CC   -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; S67954; E118856; -.
DR   EMBL; S67956; G544997; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23       BY SIMILARITY.
FT   CHAIN        24     99       MONOCYTE CHEMOTACTIC PROTEIN 2.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     34     59       BY SIMILARITY.
FT   DISULFID     35     75       BY SIMILARITY.
SQ   SEQUENCE   99 AA;  10900 MW;  9BA2CD26 CRC32;

  Query Match           96.9%;  Score 94;  DB 1;  Length 99;
  Best Local Similarity 83.3%;  Pred. No. 1.61e-09;
  Matches   10;  Conservative    2;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 DVCADPKQKWVQ 84
          ::|||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    5
ID   MCP4_HUMAN     STANDARD;      PRT;    98 AA.
AC   Q99616;
DT   15-JUL-1998 (REL. 36, CREATED)
DT   15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
DE   CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1).
GN   SCYA13 OR MCP4 OR NCC1.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; PRIMATES.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=HEART;
RX   MEDLINE; 97113354.
RA   GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA   LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
RL   J. IMMUNOL. 157:5613-5626(1996).
RN   [2]
RP   SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
RC   TISSUE=FETAL;
RX   MEDLINE; 96235049.
RA   UGUCCIONI M., LOETSCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H.,
RA   LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
RL   J. EXP. MED. 183:2379-2384(1996).
RN   [3]
RP   SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
RC   TISSUE=FETAL;
RX   MEDLINE; 97341179.
RA   BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N.,
RA   APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J.,
RA   SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
RA   O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
RL   J. BIOL. CHEM. 272:16404-16413(1997).
RN   [4]
RP   SEQUENCE FROM N.A.
RA   DANTE M., GIBSON A.;
RL   SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
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CC       BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CC       CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
CC       LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
CC       MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
CC       WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
CC       ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
CC       EXOGENOUS PATHOGENS.
CC   -!- MASS SPECTROMETRY: MW=9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98.
CC   -!- MASS SPECTROMETRY: MW=8760; MW_ERR=30; METHOD=MALDI; RANGE=22-98.
CC   -!- MASS SPECTROMETRY: MW=8575; MW_ERR=30; METHOD=MALDI; RANGE=24-98.
CC   -!- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC   -!- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
CC       THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
CC       SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC   -!- THIS PROTEIN CAN BIND HEPARIN.
CC   -!- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
CC       (FNPQGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC       (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; U46767; G1732123; -.
DR   EMBL; AC002482; G2340091; -.
DR   MIM; 601391; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23
FT   CHAIN        24     98       MONOCYTE CHEMOTACTIC PROTEIN 4.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID     34     58       BY SIMILARITY.
FT   DISULFID     35     74       BY SIMILARITY.
FT   CARBOHYD     29     29       POTENTIAL.
SQ   SEQUENCE   98 AA;  10986 MW;  DF52F6EC CRC32;

  Query Match           95.9%;  Score 93;  DB 1;  Length 98;
  Best Local Similarity  91.7%;  Pred. No. 2.92e-09;
  Matches    11;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db     72 EICADPKEKWVQ 83
          |||||||:||||
Qy      1 EICADPKQKWVQ 12


RESULT    6
ID   MCPA_BOVIN     STANDARD;      PRT;    99 AA.
AC   P28291;
DT   01-DEC-1992 (REL. 24, CREATED)
DT   01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT   01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
DE   SEMINAL FLUID PROTEIN).
OS   BOS TAURUS (BOVINE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; ARTIODACTYLA.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=SEMINAL PLASMA;
RX   MEDLINE; 92096117.
RA   WEMPE F., HENSCHEN A., SCHEIT K.H.;
RL   DNA CELL BIOL. 10:671-679(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=SEMINAL PLASMA;
RX   MEDLINE; 92181448.
RA   WEMPE F., EINSPANIER R., SCHEIT K.H.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 94338337.
RA   WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC       NEUTROPHILS.
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; L32659; G624394; -.
DR   EMBL; M84602; G163395; -.
DR   PIR; A39296; A39296.
DR   PIR; JC2336; JC2336.
DR   HSSP; P13500; 1MCA.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL.
FT   SIGNAL        1     23       BY SIMILARITY.
FT   CHAIN        24     99       MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     34     59       BY SIMILARITY.
FT   DISULFID     35     75       BY SIMILARITY.
SQ   SEQUENCE   99 AA;  11114 MW;  C8F5821D CRC32;

  Query Match           94.8%;  Score 92;  DB 1;  Length 99;
  Best Local Similarity  91.7%;  Pred. No. 5.26e-09;
  Matches    11;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 ELCADPKQKWVQ 84
          |:||||||||||
Qy      1 EICADPKQKWVQ 12


RESULT    7
ID   MCP1_RABIT     STANDARD;      PRT;    125 AA.
AC   P28292;
DT   01-DEC-1992 (REL. 24, CREATED)
DT   01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN   SCYA2.
OS   ORYCTOLAGUS CUNICULUS (RABBIT).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; LAGOMORPHA.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=NEW ZEALAND WHITE; TISSUE=SPLEEN;
RX   MEDLINE; 91225489.
RA   YOSHIMURA T., YUHKI N.;
RL   J. IMMUNOL. 146:3483-3488(1991).
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC       NEUTROPHILS.
CC   -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; M57440; G165470; -.
DR   HSSP; P13500; 1MCA.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT   SIGNAL        1     23       BY SIMILARITY.
FT   CHAIN        24    125       MONOCYTE CHEMOTACTIC PROTEIN 1.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     34     59       BY SIMILARITY.
FT   DISULFID     35     75       BY SIMILARITY.
FT   CARBOHYD     40     40       POTENTIAL.
FT   CARBOHYD     55     55       POTENTIAL.
FT   CARBOHYD    112    112       POTENTIAL.
SQ   SEQUENCE   125 AA;  13776 MW;  FBAC9D27 CRC32;

  Query Match           93.8%;  Score 91;  DB 1;  Length 125;
  Best Local Similarity 100.0%;  Pred. No. 9.47e-09;
  Matches    11;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     74 ICADPKQKWVQ 84
          ||||||||||
Qy      2 ICADPKQKWVQ 12


RESULT    8
ID   EOTA_RAT       STANDARD;      PRT;    97 AA.
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AC   P97545; O08780;
DT   15-JUL-1998 (REL. 36, CREATED)
DT   15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS   RATTUS NORVEGICUS (RAT).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; RODENTIA.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA   FLANAGAN B.F.;
RL   SUBMITTED (DEC-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=LUNG;
RA   ISHII Y.;
RL   SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
CC   -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC       DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC       FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC   -!- PTM: O-GLYCOSYLATED (PROBABLE).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; Y08358; E274141; -.
DR   EMBL; U96637; G2098785; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW   INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23       POTENTIAL.
FT   CHAIN        24     97       EOTAXIN.
FT   DISULFID     32     57       BY SIMILARITY.
FT   DISULFID     33     73       BY SIMILARITY.
FT   CARBOHYD     94     94       POTENTIAL.
FT   CONFLICT      3      3       L -> S (IN REF. 2).
SQ   SEQUENCE   97 AA;  10851 MW;  05B4ED45 CRC32;

  Query Match           92.8%;  Score 90;  DB 1;  Length 97;
  Best Local Similarity  91.7%;  Pred. No. 1.70e-08;
  Matches   11;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db     71 EICADPKKKWVQ 82
          ||||||| ||||
Qy      1 EICADPKQKWVQ 12


RESULT    9
ID   EOTA_MOUSE     STANDARD;      PRT;    97 AA.
AC   P48298;
     01-FEB-1996 (REL. 33, CREATED)
     01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN   SCYA11.
OS   MUS MUSCULUS (MOUSE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; RODENTIA.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=LUNG;
RX   MEDLINE; 96004658.
RA   ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RL   PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=LUNG;
RX   MEDLINE; 96158746.
RA   GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
RA   JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
RA   GUTIERREZ-RAMOS J.-C.;
RL   IMMUNITY 4:1-14(1996).
CC   -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC       DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
CC       FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
CC       LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC   -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC   -!- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
CC       EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CC       CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC   -!- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC   -!- PTM: O-GLYCOSYLATED (PROBABLE).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; U26426; G995911; -.
DR   EMBL; U40672; G1113937; -.
DR   MGD; MGI:103576; SCYA11.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW   INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23       POTENTIAL.
FT   CHAIN        24     97       EOTAXIN.
FT   DISULFID     32     57       BY SIMILARITY.
FT   DISULFID     33     73       BY SIMILARITY.
SQ   SEQUENCE   97 AA;  10893 MW;  F85A96BC CRC32;

  Query Match           92.8%;  Score 90;  DB 1;  Length 97;
  Best Local Similarity  91.7%;  Pred. No. 1.70e-08;
  Matches   11;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db     71 EICADPKKKWVQ 82
          ||||||| ||||
Qy      1 EICADPKQKWVQ 12


RESULT   10
ID   MCP3_HUMAN     STANDARD;      PRT;    99 AA.
AC   P80098;
DT   01-DEC-1992 (REL. 24, CREATED)
DT   01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE   CHEMOATTRACTANT PROTEIN 3) (NC28).
GN   SCYA7 OR MCP3.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; PRIMATES.
RN   [1]
RP   SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
RX   MEDLINE; 93213290.
RA   OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 94375065.
RA   OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
RA   LAUREYS G., VAN DAMME J.;
RL   GENOMICS 21:403-408(1994).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 93305913.
RA   MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
RA   MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
RA   SHIRE D., FERRARA P., CAPUT D.;
RL   EUR. CYTOKINE NETW. 4:99-110(1993).
RN   [4]
RP   SEQUENCE OF 30-99.
RC   TISSUE=OSTEOSARCOMA;
RX   MEDLINE; 92308855.
RA   VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL   J. EXP. MED. 176:59-65(1992).
RN   [5]
RP   STRUCTURE BY NMR, AND SUBUNIT.
RX   MEDLINE; 97053697.
RA   KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL   FEBS LETT. 395:277-282(1996).
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RN   [6]
RP   STRUCTURE BY NMR.
RX   MEDLINE; 97263733.
RA   MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL   BIOCHEMISTRY 36:4412-4422(1997).
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC       EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC       ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CC       CAN BIND HEPARIN.
CC   -!- SUBUNIT: MONOMER.
CC   -!- PTM: O-GLYCOSYLATED.
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; X72308; G313708; ALT_INIT.
DR   EMBL; X72309; -; NOT_ANNOTATED_CDS.
DR   EMBL; X71087; G288399; -.
DR   EMBL; X71087; G288398; ALT_INIT.
DR   EMBL; X71087; G288397; ALT_INIT.
DR   PIR; JC1478; JC1478.
DR   PIR; S32222; S32222.
DR   PIR; A54678; A54678.
DR   PDB; 1NCV; 15-OCT-97.
DR   MIM; 158106; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KW   INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT   SIGNAL       1     23
FT   CHAIN       24     99       MONOCYTE CHEMOTACTIC PROTEIN 3.
FT   MOD_RES     24     24       PYRROLIDONE CARBOXYLIC ACID.
FT   DISULFID    34     59       BY SIMILARITY.
FT   DISULFID    35     75       BY SIMILARITY.
FT   CARBOHYD    29     29       POTENTIAL.
FT   CONFLICT    30     30       T -> K (IN REF. 4).
FT   CONFLICT    68     70       MISSING (IN REF. 4).
SQ   SEQUENCE   99 AA;  11200 MW;  7502E19C CRC32;

  Query Match           92.8%;  Score 90;  DB 1;  Length 99;
  Best Local Similarity  91.7%;  Pred. No. 1.70e-08;
  Matches   11;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db     73 EICADPTQKWVQ 84
          |||||| |||||
Qy      1 EICADPKQKWVQ 12


    LT   11
ID   EOTA_HUMAN     STANDARD;      PRT;    97 AA.
AC   P51671; P50877; Q92490; Q92491;
DT   01-OCT-1996 (REL. 34, CREATED)
DT   01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT   01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE   EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN   SCYA11.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; PRIMATES.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 96181758.
RA   GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNBEY T.R., LEDER P.,
RA   LUSTER A.D.;
RL   NAT. MED. 2:449-456(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 96189937.
RA   PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
RA   SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
RA   MACKAY C.R.;
RL   J. CLIN. INVEST. 97:604-612(1996).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=SMALL INTESTINE;
RX   MEDLINE; 96205964.
RA   KITAURA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
RA   TIFFANY H.L., MURPHY P.M., YOSHIE O.;
RL   J. BIOL. CHEM. 271:7725-7730(1996).
RN   [4]
RP   SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
RC   TISSUE=FORESKIN;
RX   MEDLINE; 96374440.
RA   BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
RA   CHRISTOPHERS E., SCHROEDER J.M.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
RN   [5]
RP   SEQUENCE FROM N.A.
RC   TISSUE=PLACENTA;
RX   MEDLINE; 97312708.
RA   GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
RA   MORTON C.C., LUSTER A.D.;
RL   GENOMICS 41:471-476(1997).
RN   [6]
RP   SEQUENCE FROM N.A.
RC   TISSUE=LUNG;
RX   MEDLINE; 97445071.
RA   HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA   BARTELS J.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC   -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC       DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC       FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC   -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC   -!- PTM: O-GLYCOSYLATED (PROBABLE).
CC   -!- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; U46573; G1280141; -.
DR   EMBL; U34780; G1185440; -.
DR   EMBL; D49372; G1552241; -.
DR   EMBL; Z69291; E221070; -.
DR   EMBL; Z75668; E251275; -.
DR   EMBL; Z75669; E251258; -.
DR   EMBL; U46572; G2088509; -.
DR   EMBL; Z92709; E329504; -.
DR   MIM; 601156; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW   INFLAMMATORY RESPONSE; POLYMORPHISM.
FT   SIGNAL       1     23       POTENTIAL.
FT   CHAIN       24     97       EOTAXIN.
FT   DISULFID    32     57       BY SIMILARITY.
FT   DISULFID    33     73       BY SIMILARITY.
FT   VARIANT      7      7       L -> P (IN CLONE 34).
FT   VARIANT     23     23       A -> T (IN CLONE 53).
FT   VARIANT     51     51       R -> S (IN CLONE 34).
FT   VARIANT     79     79       K -> R (IN CLONE 53).
SQ   SEQUENCE   97 AA;  10732 MW;  6C0F3D98 CRC32;

  Query Match           91.8%;  Score 89;  DB 1;  Length 97;
  Best Local Similarity  83.3%;  Pred. No. 3.05e-08;
  Matches   10;  Conservative    1;  Mismatches   1;  Indels   0;  Gaps   0;

Db     71 DICADPKKKWVQ 82
          :|||||| ||||
Qy      1 EICADPKQKWVQ 12


RESULT   12
ID   MCP2_PIG       STANDARD;      PRT;    99 AA.
AC   P49873;
DT   01-OCT-1996 (REL. 34, CREATED)
DT   01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE   CHEMOATTRACTANT PROTEIN 2).
GN   SCYA8 OR MCP2.
OS   SUS SCROFA (PIG).
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OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; ARTIODACTYLA.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 95091716.
RA   HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA   SCHEIT K.K.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC       CAN BIND HEPARIN.
CC   -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; Z48480; G683719; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23       BY SIMILARITY.
FT   CHAIN        24     99       MONOCYTE CHEMOTACTIC PROTEIN 2.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     34     59       BY SIMILARITY.
FT   DISULFID     35     75       BY SIMILARITY.
     SEQUENCE   99 AA;  10903 MW;  B7620BCF CRC32;

  Query Match           90.7%;  Score 88;  DB 1;  Length 99;
  Best Local Similarity  83.3%;  Pred. No. 5.44e-08;
  Matches    10;  Conservative    1;  Mismatches   1;  Indels   0;  Gaps   0;

Db     73 EVCADPQQKWVQ 84
          |:|||| |||||
Qy      1 EICADPKQKWVQ 12


RESULT   13
ID   MCP1_CAVPO     STANDARD;      PRT;   120 AA.
AC   Q08782;
DT   01-NOV-1995 (REL. 32, CREATED)
DT   01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE   CHEMOATTRACTANT PROTEIN-1).
GN   SCYA2 OR MCP1.
OS   CAVIA PORCELLUS (GUINEA PIG).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; RODENTIA.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Z; TISSUE=SPLEEN;
RX   MEDLINE; 93267104.
RA   YOSHIMURA T.;
     J. IMMUNOL. 150:5025-5032(1993).
     -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC       NEUTROPHILS.
CC   -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; L04985; G349821; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT   SIGNAL        1     23       BY SIMILARITY.
FT   CHAIN        24    120       MONOCYTE CHEMOTACTIC PROTEIN 1.
FT   MOD_RES      24     24       PYRROLIDONE CARBOXYLIC ACID (BY
FT                                SIMILARITY).
FT   DISULFID     33     57       BY SIMILARITY.
FT   DISULFID     34     73       BY SIMILARITY.
FT   CARBOHYD     97     97       POTENTIAL.
SQ   SEQUENCE   120 AA;  13741 MW;  22FAD257 CRC32;

  Query Match           90.7%;  Score 88;  DB 1;  Length 120;
  Best Local Similarity  83.3%;  Pred. No. 5.44e-08;
  Matches    10;  Conservative    1;  Mismatches   1;  Indels   0;  Gaps   0;

Db     71 EVCADPTQKWVQ 82
          |:|||| |||||
Qy      1 EICADPKQKWVQ 12


RESULT   14
ID   MCP5_MOUSE     STANDARD;      PRT;   104 AA.
AC   Q62401;
DT   01-NOV-1997 (REL. 35, CREATED)
DT   01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE   CHEMOKINE).
GN   SCYA12 OR MCP5.
OS   MUS MUSCULUS (MOUSE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; RODENTIA.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 97079149.
RA   JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA   WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
RL   J. EXP. MED. 184:1939-1951(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 97149438.
RA   SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
RA   LUSTER A.D.;
RL   J. EXP. MED. 185:99-109(1997).
CC   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
CC       AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CC       CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
CC       INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
CC       PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC   -!- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC   -!- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
CC       THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
CC       BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC   -!- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; U50712; G1477582; -.
DR   EMBL; U66670; G1881583; -.
DR   MGD; MGI:108224; SCYA12.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    104       MONOCYTE CHEMOTACTIC PROTEIN 5.
FT   DISULFID     33     58       BY SIMILARITY.
FT   DISULFID     34     74       BY SIMILARITY.
SQ   SEQUENCE   104 AA;  11659 MW;  08FA6C35 CRC32;

  Query Match           88.7%;  Score 86;  DB 1;  Length 104;
  Best Local Similarity  90.9%;  Pred. No. 1.73e-07;
  Matches    10;  Conservative    1;  Mismatches   0;  Indels   0;  Gaps   0;

Db     72 EICADPKEKWV 82
          |||||||:|||
Qy      1 EICADPKQKWV 11


RESULT   15
ID   EOTA_CAVPO     STANDARD;      PRT;    96 AA.
AC   P80325;
DT   01-JUN-1994 (REL. 29, CREATED)
DT   01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE   EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN   SCYA11.
OS   CAVIA PORCELLUS (GUINEA PIG).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC   EUTHERIA; RODENTIA.
RN   [1]
RP   SEQUENCE FROM N.A.
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RC   TISSUE=LUNG;
RX   MEDLINE; 95173589.
RA   ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL   J. EXP. MED. 181:1211-1216(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 95091818.
RA   JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA   WELLS T.C., WILLIAMS T.J., POWER C.A.;
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN   [3]
RP   SEQUENCE OF 24-96.
RC   STRAIN=HARTLEY; TISSUE=LUNG;
RX   MEDLINE; 94157409.
RA   JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA   MOQBEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
     J. EXP. MED. 179:881-887(1994).
     -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
         DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
         FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC   -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC   -!- TISSUE SPECIFICITY: LUNG.
CC   -!- PTM: O-GLYCOSYLATED (PROBABLE).
CC   -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC       C-C) (CHEMOKINE CC).
DR   EMBL; U18941; G687656; -.
DR   EMBL; X77603; G602552; -.
DR   HSSP; P13500; 1MCA.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW   INFLAMMATORY RESPONSE.
FT   SIGNAL        1     23
FT   CHAIN        24     96       EOTAXIN.
FT   DISULFID     31     56       BY SIMILARITY.
FT   DISULFID     32     72       BY SIMILARITY.
FT   CARBOHYD     93     93       POTENTIAL.
FT   CONFLICT     88     88       D -> G (IN REF. 2).
SQ   SEQUENCE   96 AA;  10753 MW;  DD28C7E5 CRC32;

  Query Match           86.6%;  Score 84;  DB 1;  Length 96;
  Best Local Similarity  90.9%;  Pred. No. 5.42e-07;
  Matches    10;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      71 ICADPKKKWVQ 81
           |||||| ||||
        2 ICADPKQKWVQ 12


Search completed: Tue Mar 30 17:37:56 1999.
Job time : 7 secs.
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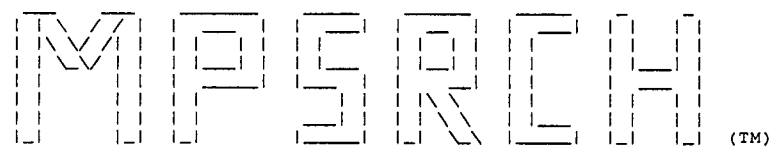

(TM)

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Release 3.1A John F. Collins, Biocomputing Research Unit.

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Tue Mar 30 17:38:14 1999; MasPar time 4.94 Seconds
134.090 Million cell updates/sec

Tabular output not generated.

.e: >US-08-927-939-1
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWVQ 12

Scoring table: PAM 150
Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: sptrembl8
1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.510; Variance 35.092; scale 0.727

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

lt o.	Score	% Query Match	Length	DB	ID	Description	Pred. No.
1	81	83.5	395	11	O35933	FRACTALKINE.	4.53e-05
2	81	83.5	395	11	O35188	NEUROTACTIN.	4.53e-05
3	77	79.4	119	4	O00175	MPIF-2.	3.48e-04
4	76	78.4	97	11	O89093	CC CHEMOKINE ST38 PREC	5.76e-04
5	76	78.4	134	4	O00585	BETA CHEMOKINE EXODUS-	5.76e-04
6	75	77.3	92	11	O88430	CC CHEMOKINE ABCD-1.	9.50e-04
7	73	75.3	97	13	O57411	LYMPHOTACTIN PRECURSOR	2.56e-03
8	72	74.2	80	4	Q14745	LD78 ALPHA BETA PRECUR	4.19e-03
9	72	74.2	95	4	Q99664	CHEMOKINE EXODUS.	4.19e-03
10	72	74.2	96	11	P97884	CC CHEMOKINE EXODUS.	4.19e-03
11	70	72.2	120	4	O15467	IL-10-INDUCIBLE CHEMOK	1.11e-02
12	69	71.1	101	13	O93238	CC CHEMOKINE-1.	1.79e-02
13	68	70.1	91	4	O43646	RANTES PRECURSOR.	2.89e-02
14	68	70.1	97	6	O62812	INTERLEUKIN-8 (FRAGMEN	2.89e-02
15	67	69.1	95	14	Q98158	ORF K6.	4.65e-02
16	67	69.1	109	11	O55038	B LYMPHOCYTE CHEMOATTR	4.65e-02
17	67	69.1	397	4	P78423	CX3C CHEMOKINE PRECURS	4.65e-02
18	66	68.0	93	4	O00626	MACROPHAGE-DERIVED CHE	7.45e-02
19	66	68.0	133	11	O09006	BETA CHEMOKINE EXODUS-	7.45e-02
20	66	68.0	133	11	O09002	SMALL INDUCIBLE CYTOKI	7.45e-02
21	64	66.0	760	3	Q99126	CHITIN SYNTHETASE I.	1.89e-01
22	60	61.9	109	4	O43927	CXC CHEMOKINE PRECURSO	1.16e+00
23	59	60.8	187	2	O83516	HYPOTHETICAL 21.4 KD P	1.80e+00
24	59	60.8	203	14	Q67634	ECO Q PROTEIN (FRAGMEN	1.80e+00
25	59	60.8	399	14	Q68409	ORF UL154.	1.80e+00
26	58	59.8	982	5	Q93290	HYPOTHETICAL PROTEIN C	2.79e+00
27	58	59.8	1053	2	O84834	RIBONUCLEOSIDE REDUCTA	2.79e+00
28	57	58.8	108	11	O70460	EBI-1 LIGAND CHEMOKINE	4.30e+00
29	57	58.8	192	10	O23536	RESISTANCE GENE HOMOLO	4.30e+00
30	57	58.8	859	14	Q97013	ENVELOPE GLYCOPROTEIN	4.30e+00
31	57	58.8	1224	5	P91309	CODED FOR BY C. ELEGAN	4.30e+00
32	57	58.8	1361	10	O04264	DOWNY MILDEW RESISTANC	4.30e+00
33	56	57.7	104	13	O73912	K60 PROTEIN PRECURSOR.	6.60e+00
34	56	57.7	522	5	O61090	SERINE RICH PROTEIN HO	6.60e+00
35	56	57.7	552	5	O46178	RADIAL SPOKEHEAD.	6.60e+00
36	55	56.7	145	2	P74671	HYPOTHETICAL 16.6 KD P	1.01e+01
37	55	56.7	248	10	O81404	1-AMINOCYCLOPROPANE-1-	1.01e+01
38	55	56.7	307	10	O65737	BETA-GALACTOSIDASE (EC	1.01e+01
39	55	56.7	350	3	Q06151	CHROMOSOME XII COSMID	1.01e+01
40	55	56.7	397	3	Q12123	O3625P.	1.01e+01
41	55	56.7	466	10	O82719	ACC SYNTHASE (EC 4.4.1	1.01e+01
42	55	56.7	491	10	Q43747	1-AMINOCYCLOPROPANE-1-	1.01e+01
43	55	56.7	497	10	Q42610	1-AMINOCYCLOPROPANE-1-	1.01e+01
44	55	56.7	730	10	O65736	BETA-GALACTOSIDASE (EC	1.01e+01
45	54	55.7	172	2	Q51136	HI1054 HOMOLOG (FRAGME	1.53e+01

ALIGNMENTS

RESULT 1
ID O35933 PRELIMINARY; PRT; 395 AA.
AC O35933;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=BALB/C; TISSUE=BRAIN;
RA ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR EMBL; U92565; G2459677; -.
DR PFAM; PF00048; il8; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 83.5%; Score 81; DB 11; Length 395;
Best Local Similarity 81.8%; Pred. No. 4.53e-05;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

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Db     73 FCADPKEKWVQ 83
           :||||||:||||
Qy      2 ICADPKQKWVQ 12
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RESULT 2
ID O35188 PRELIMINARY; PRT; 395 AA.
AC O35188;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROTACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,

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RA   GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
RA   GUTIERREZ-RAMOS J.C., GEARING D.;
RT   "Neurotactin, a membrane-anchored chemokine upregulated in brain
RT   inflammation.";
RL   NATURE 387:611-617(1997).
DR   EMBL; AF010586; G2317698; -.
DR   MGD; MGI:1097153; SCYD1.
DR   PFAM; PF00048; il8; 1.
SQ   SEQUENCE   395 AA;  42098 MW;  E3CD0612 CRC32;

  Query Match           83.5%;  Score 81;  DB 11;  Length 395;
  Best Local Similarity  81.8%;  Pred. No. 4.53e-05;
  Matches    9;  Conservative    2;  Mismatches   0;  Indels   0;  Gaps   0;

Db     73 FCADPKEKWVQ 83
          :|||||:||||
Qy      2 ICADPKQKWVQ 12


RESULT    3
ID   O00175      PRELIMINARY;      PRT;   119 AA.
AC   O00175;
DT   01-JUL-1997 (TREMBLREL. 04, CREATED)
DT   01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   MPIF-2.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC   CATARRHINI; HOMINIDAE; HOMO.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA   NARDELLI B., PIPPALLA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA   GENTZ R., GAROTTA G.;
RL   J. EXP. MED. 0:0-0(0).
DR   EMBL; U85768; G1916252; -.
DR   PFAM; PF00048; il8; 1.
SQ   SEQUENCE   119 AA;  13119 MW;  CDF526F0 CRC32;

  Query Match           79.4%;  Score 77;  DB 4;  Length 119;
  Best Local Similarity  66.7%;  Pred. No. 3.48e-04;
  Matches    8;  Conservative    3;  Mismatches   1;  Indels   0;  Gaps   0;

Db     72 QFCGDPKQEWVQ 83
          ::|:|||| |||
Qy      1 EICADPKQKWVQ 12


RESULT    4
ID   O89093      PRELIMINARY;      PRT;    97 AA.
AC   O89093;
DT   01-NOV-1998 (TREMBLREL. 08, CREATED)
DT   01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   CC CHEMOKINE ST38 PRECURSOR.
GN   LARC.
OS   MUS MUSCULUS (MOUSE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC   RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA   LESSLAUER W.;
RT   "A novel rat CC chemokine, identified by targeted differential
RT   display, is upregulated in brain inflammation.";
RL   J. NEUROIMMUNOL. 0:0-0(1998).
RN   [2]
RP   SEQUENCE FROM N.A.
RA   VILLARES R.;
RL   SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; AF053313; G3551819; -.
DR   EMBL; AJ007862; E1312757; -.
KW   SIGNAL.
FT   SIGNAL        1     27       POTENTIAL.
FT   CHAIN        28     97       CC CHEMOKINE ST38.
SQ   SEQUENCE   97 AA;  10826 MW;  053405BD CRC32;

  Query Match           78.4%;  Score 76;  DB 11;  Length 97;
  Best Local Similarity  80.0%;  Pred. No. 5.76e-04;
  Matches    8;  Conservative    2;  Mismatches   0;  Indels   0;  Gaps   0;

Db     74 VCADPKQNWV 83
          :|||||:||
Qy      2 ICADPKQKWV 11


RESULT    5
ID   O00585      PRELIMINARY;      PRT;   134 AA.
AC   O00585;
DT   01-JUL-1997 (TREMBLREL. 04, CREATED)
DT   01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   BETA CHEMOKINE EXODUS-2.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC   CATARRHINI; HOMINIDAE; HOMO.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.;
RL   SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 97400322.
RA   HEDRICK J.A., ZLOTNIK A.;
RT   "Identification and characterization of a novel beta chemokine
RT   containing six conserved cysteines.";
RL   J. IMMUNOL. 159:1589-1593(1997).
RN   [3]
RP   SEQUENCE FROM N.A.
RA   HEDRICK J.A., ZLOTNIK A.;
RL   SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [4]
RP   SEQUENCE FROM N.A.
RA   NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
RA   NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
RL   SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; U88320; G2196920; -.
DR   EMBL; AF001979; G2624925; -.
DR   EMBL; AB002409; D1022673; -.
DR   PFAM; PF00048; il8; 1.
SQ   SEQUENCE   134 AA;  14646 MW;  FE86A239 CRC32;

  Query Match           78.4%;  Score 76;  DB 4;  Length 134;
  Best Local Similarity  75.0%;  Pred. No. 5.76e-04;
  Matches    9;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db     73 ELCADPKELWVQ 84
          |:||||: |||
Qy      1 EICADPKQKWVQ 12


RESULT    6
ID   O88430      PRELIMINARY;      PRT;    92 AA.
AC   O88430;
DT   01-NOV-1998 (TREMBLREL. 08, CREATED)
DT   01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   CC CHEMOKINE ABCD-1.
OS   MUS MUSCULUS (MOUSE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC   RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=LIVER;
RX   MEDLINE; 98353531.
RA   SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C.,
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RA   SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
RA   SIDERAS P.;
RT   "Activated murine B lymphocytes and dendritic cells produce a novel
RT   CC chemokine which acts selectively on activated T cells.";
RL   J. EXP. MED. 188:451-463(1998).
DR   EMBL; AF052505; G3378116; -.
SQ   SEQUENCE   92 AA;  10302 MW;  BC7219A0 CRC32;

  Query Match           77.3%;  Score 75;  DB 11;  Length 92;
  Best Local Similarity  72.7%;  Pred. No. 9.50e-04;
  Matches     8;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      74 DICADPRQVWV 84
           :|||||:| ||
Qy       1 EICADPKQKWV 11


RESULT    7
ID   O57411      PRELIMINARY;      PRT;    97 AA.
AC   O57411;
DT   01-JUN-1998 (TREMBLREL. 06, CREATED)
DT   01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
     01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
     LYMPHOTACTIN PRECURSOR.
OS   GALLUS GALLUS (CHICKEN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC   NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=SPLEEN;
RA   ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
RL   SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; AF006742; G2827882; -.
KW   SIGNAL.
FT   SIGNAL        1     24       POTENTIAL.
FT   CHAIN        25     97       LYMPHOTACTIN.
SQ   SEQUENCE   97 AA;  11131 MW;  3290101C CRC32;

  Query Match           75.3%;  Score 73;  DB 13;  Length 97;
  Best Local Similarity  72.7%;  Pred. No. 2.56e-03;
  Matches     8;  Conservative    0;  Mismatches   3;  Indels   0;  Gaps   0;

Db      72 ICVHPEQKWVQ 82
           ||  | |||||
Qy       2 ICADPKQKWVQ 12


RESULT    8
ID   Q14745      PRELIMINARY;      PRT;    80 AA.
AC   Q14745;
     01-NOV-1996 (TREMBLREL. 01, CREATED)
     01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   LD78 ALPHA BETA PRECURSOR (FRAGMENT).
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC   CATARRHINI; HOMINIDAE; HOMO.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=BRAIN;
RA   ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA   KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
RA   MIYAKAWA T.;
RL   SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; D63785; G961440; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR   PFAM; PF00048; il8; 1.
KW   SIGNAL.
FT   NON_TER       1      1
FT   SIGNAL       <1     16       POTENTIAL.
FT   CHAIN        17    >80       LD78 ALPHA BETA.
FT   NON_TER      80     80
SQ   SEQUENCE   80 AA;  8857 MW;  3F87F1C6 CRC32;

  Query Match           74.2%;  Score 72;  DB 4;  Length 80;
  Best Local Similarity  58.3%;  Pred. No. 4.19e-03;
  Matches     7;  Conservative    3;  Mismatches   2;  Indels   0;  Gaps   0;

Db      65 QVCADPSEEWVQ 76
           ::|||| : |||
Qy       1 EICADPKQKWVQ 12


RESULT    9
ID   Q99664      PRELIMINARY;      PRT;    95 AA.
AC   Q99664;
DT   01-MAY-1997 (TREMBLREL. 03, CREATED)
DT   01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   CHEMOKINE EXODUS.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC   CATARRHINI; HOMINIDAE; HOMO.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=PANCREAS;
RX   MEDLINE; 97275143.
RA   HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K.,
RA   BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E.,
RA   KLEMSZ M.J.;
RT   "Cloning and characterization of exodus, a novel beta-chemokine.";
RL   BLOOD 89:3315-3322(1997).
DR   EMBL; U64197; G1778717; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR   PFAM; PF00048; il8; 1.
SQ   SEQUENCE   95 AA;  10691 MW;  1526B4C0 CRC32;

  Query Match           74.2%;  Score 72;  DB 4;  Length 95;
  Best Local Similarity  70.0%;  Pred. No. 4.19e-03;
  Matches     7;  Conservative    2;  Mismatches   1;  Indels   0;  Gaps   0;

Db      72 VCANPKQTWV 81
           :||:||| ||
Qy       2 ICADPKQKWV 11


RESULT   10
ID   P97884      PRELIMINARY;      PRT;    96 AA.
AC   P97884;
DT   01-MAY-1997 (TREMBLREL. 03, CREATED)
DT   01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   CC CHEMOKINE EXODUS.
OS   RATTUS NORVEGICUS (RAT).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC   SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=SPRAGUE-DAWLEY;
RA   KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
RL   SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=FISHER 344; TISSUE=BRAIN;
RA   UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA   LESSLAUER W.;
RT   "A novel rat CC chemokine, identified by targeted differential
RT   display, is upregulated in brain inflammation.";
RL   J. NEUROIMMUNOL. 0:0-0(1998).
DR   EMBL; U90447; G1899246; -.
DR   EMBL; AF053312; G3551817; -.
DR   PFAM; PF00048; il8; 1.
KW   SIGNAL.
SQ   SEQUENCE   96 AA;  10875 MW;  3FC09DD8 CRC32;

  Query Match           74.2%;  Score 72;  DB 11;  Length 96;
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  Best Local Similarity  80.0%;  Pred. No. 4.19e-03;
  Matches     8;  Conservative    1;  Mismatches   1;  Indels   0;  Gaps   0;

Db      73 VCADPKQIWV 82
           :|||||| ||
Qy       2 ICADPKQKWV 11


RESULT   11
ID   O15467      PRELIMINARY;      PRT;   120 AA.
AC   O15467;
DT   01-JAN-1998 (TREMBLREL. 05, CREATED)
DT   01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   IL-10-INDUCIBLE CHEMOKINE.
GN   ILINCK OR SCYA16.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC   CATARRHINI; HOMINIDAE; HOMO.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL   SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=LIVER;
RA   SHOUDAI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
RA   YOSHIE O., NOMIYAMA H.;
RL   BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN   [3]
RP   SEQUENCE FROM N.A.
RA   NOMIYAMA H.;
RT   "Structure of a region of 181 kb containing five CC chemokine genes.";
RL   SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [4]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 98308096.
RA   YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA   HANGOC G., KWON B.S.;
RT   "Isolation and characterization of LMC, a novel lymphocyte and
RT   monocyte chemoattractant human CC chemokine, with myelosuppressive
RT   activity.";
RL   BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR   EMBL; U91746; G2581781; -.
DR   EMBL; AB007454; D1024963; -.
DR   EMBL; AF088219; G3719365; -.
DR   EMBL; AF055467; G3395776; -.
DR   PFAM; PF00048; il8; 1.
KW   SIGNAL.
SQ   SEQUENCE   120 AA;  13600 MW;  A079DF66 CRC32;

  Query Match           72.2%;  Score 70;  DB 4;  Length 120;
  Best Local Similarity  50.0%;  Pred. No. 1.11e-02;
  Matches     6;  Conservative    5;  Mismatches   1;  Indels   0;  Gaps   0;

Db      74 EVCTNPNDDWVQ 85
           |:|::|:: |||
Qy       1 EICADPKQKWVQ 12


RESULT   12
ID   O93238      PRELIMINARY;      PRT;   101 AA.
AC   O93238;
DT   01-NOV-1998 (TREMBLREL. 08, CREATED)
DT   01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   CC CHEMOKINE-1.
OS   CYPRINUS CARPIO (COMMON CARP).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC   TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC   CYPRINIDAE; CYPRININAE; CYPRINUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   FUJIKI K., NAKAO M., SHIN D., YANO T.;
RT   "cDNA cloning of a carp CC chemokine homologous to mammalian
RT   eotaxins.";
RL   SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; AB010469; D1032417; -.
SQ   SEQUENCE   101 AA;  11266 MW;  9CFBD540 CRC32;

  Query Match           71.1%;  Score 69;  DB 13;  Length 101;
  Best Local Similarity  63.6%;  Pred. No. 1.79e-02;
  Matches     7;  Conservative    3;  Mismatches   1;  Indels   0;  Gaps   0;

Db      72 EFCSDPKLRWV 82
           |:|:||| :||
Qy       1 EICADPKQKWV 11


RESULT   13
ID   O43646      PRELIMINARY;      PRT;    91 AA.
AC   O43646;
DT   01-JUN-1998 (TREMBLREL. 06, CREATED)
DT   01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   RANTES PRECURSOR.
GN   SCYA5.
OS   HOMO SAPIENS (HUMAN).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC   CATARRHINI; HOMINIDAE; HOMO.
RN   [1]
RP   SEQUENCE FROM N.A.
RA   JANG J.S., KIM B.E.;
RL   SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   NOMIYAMA H.;
RT   "Structure of a region of 181 kb containing five CC chemokine genes.";
RL   SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; AF043341; G2905632; -.
DR   EMBL; AF088219; G3719366; -.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   SIGNAL.
FT   SIGNAL        1     23       POTENTIAL.
FT   CHAIN        24     91       RANTES.
SQ   SEQUENCE   91 AA;  9990 MW;  CF404FAD CRC32;

  Query Match           70.1%;  Score 68;  DB 4;  Length 91;
  Best Local Similarity  50.0%;  Pred. No. 2.89e-02;
  Matches     6;  Conservative    4;  Mismatches   2;  Indels   0;  Gaps   0;

Db      71 QVCANPEKKWVR 82
           ::||:|  |||:
Qy       1 EICADPKQKWVQ 12


RESULT   14
ID   O62812      PRELIMINARY;      PRT;    97 AA.
AC   O62812;
DT   01-AUG-1998 (TREMBLREL. 07, CREATED)
DT   01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT   01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE   INTERLEUKIN-8 (FRAGMENT).
GN   IL-8.
OS   EQUUS CABALLUS (HORSE).
OC   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC   PERISSODACTYLA; EQUIDAE; EQUUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=BRONCHOALVEOLAR TISSUE;
RA   FRANCHINI M.;
RL   SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; AF062377; G3126973; -.
FT   NON_TER      97     97
SQ   SEQUENCE   97 AA;  10742 MW;  00396FBF CRC32;
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  Query Match           70.1%;  Score 68;  DB 6;  Length 97;
  Best Local Similarity  58.3%;  Pred. No. 2.89e-02;
  Matches     7;  Conservative    2;  Mismatches   3;  Indels   0;  Gaps   0;

Db      75 EVCLNPHTKWVQ 86
           |:| :|  ||||
Qy       1 EICADPKQKWVQ 12


RESULT   15
ID   Q98158      PRELIMINARY;      PRT;    95 AA.
AC   Q98158; O12569;
DT   01-FEB-1997 (TREMBLREL. 02, CREATED)
DT   01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT   01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE   ORF K6.
OS   KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC   VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC   GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 97094384.
     MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
     "Molecular mimicry of human cytokine and cytokine response pathway
RT   genes by KSHV.";
RL   SCIENCE 274:1739-1744(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE; 97121480.
RA   RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA   PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT   "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT   (HHV8).";
RL   PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN   [3]
RP   SEQUENCE FROM N.A.
RA   RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA   PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL   SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [4]
RP   SEQUENCE FROM N.A.
RA   NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
RA   HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL   SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [5]
RP   SEQUENCE FROM N.A.
RA   RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA   PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL   SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN   [6]
     SEQUENCE FROM N.A.
     MEDLINE; 97296220.
RA   NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT   "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT   human herpesvirus 8: determinants of its pathogenicity?";
RL   J. VIROL. 71:4187-4192(1997).
RN   [7]
RP   SEQUENCE FROM N.A.
RA   SUN R., LIN S.-F., MILLER G.;
RL   SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR   EMBL; U75698; G1718266; -.
DR   EMBL; U74585; G1658273; -.
DR   EMBL; U93872; G2246546; -.
DR   EMBL; U71366; G3551763; -.
DR   PFAM; PF00048; il8; 1.
KW   HYPOTHETICAL PROTEIN.
SQ   SEQUENCE   95 AA;  10485 MW;  5283348D CRC32;

  Query Match           69.1%;  Score 67;  DB 14;  Length 95;
  Best Local Similarity  58.3%;  Pred. No. 4.65e-02;
  Matches     7;  Conservative    3;  Mismatches   2;  Indels   0;  Gaps   0;

Db      74 QICADPSKNWVR 85
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Qy       1 EICADPKQKWVQ 12


Search completed: Tue Mar 30 17:39:03 1999
Job time : 49 secs.
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